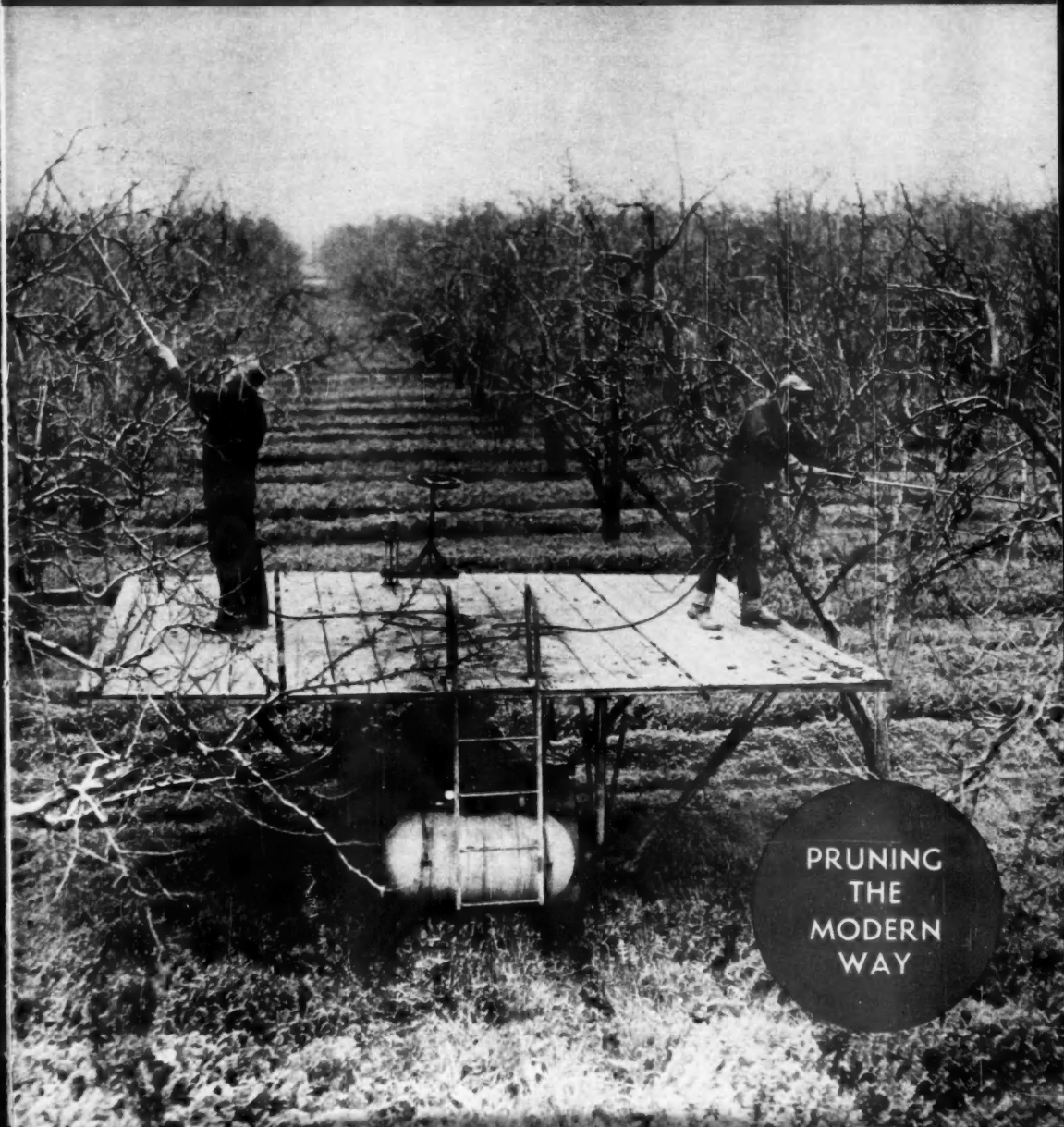


December

1951

American FRUIT GROWER



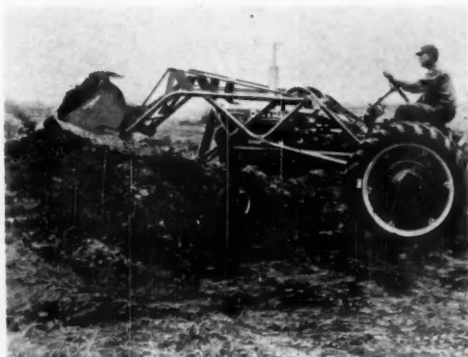
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Do All Your Work Easier with a McCormick FARMALL Super C



Dig Holes SITTING DOWN

... Build and repair fences, plant trees *fast* with a McCormick Farmall Super C and easily-attached post hole digger. Eight auger sizes, from 4 to 24 inches. Digs holes straight down, even on steep hillsides. Auger is effortlessly raised and lowered by hydraulic Farmall Touch-Control.



Load Manure, Scoop Dirt—FAST, EASY!

High lift, big-capacity loader and Farmall Super C make one of the easiest handling outfits you ever saw! Three hydraulic cylinders and Super C continuous-running pump let you raise or lower bucket whether engine clutch is in or out. The loader is quickly mounted on the tractor.



Plow to 8 inches Deep

Farmall Super C and center-draft, quick-connect plow turn the neatest furrows you ever saw! Super C has both the power and the traction to pull two 14-inch bottoms on either a direct-connected or trailing-type plow; 7 or 8-foot tandem disk harrow and all other implements of 2-row, 2-plow size.



Plant, Cultivate, Harvest ANY Crop

The two-row, forward-mounted checkrow planter shown above is typical of the easily-attached, easily-used *full* line of quick-connect implements for the Farmall Super C. On the drawbar, you can pull 6-foot engine-driven harvester-thresher, hay baler, single-row corn picker and similar heavy loads.



See your IH dealer for complete information on any of these implements. Ask too, about other odd-job implements, such as: buzz saw, rear carrying unit, digger-crane-shovel, and water pump.

INTERNATIONAL HARVESTER

International Harvester products pay for themselves in use—McCormick Farm Equipment and Farmall Tractors ... Motor Trucks ... Crawler Tractors and Power Units ... Refrigerators and Freezers—Chicago 1, Illinois.





An early start is important!

A good fruit harvest starts long before the first leaves appear on the trees. It is never too early to start planning a good spraying program—a program to assure you of the best possible crop.

Orchardists planning their spraying programs will find in the complete Dow line the all-season protection they need. Dow's tested insecticides and fungicides are designed to work well together. Each one does its job with minimum labor and

material costs. Each is uniform, dependable, tested for results.

In addition, Dow has developed, tested and marketed many other aids for the grower, including plant growth regulators, grain and soil fumigants, wood preservative and brush, weed and grass killers.

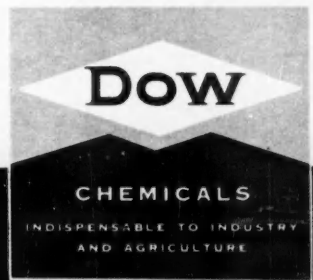
Ask your supplier for

DOW AGRICULTURAL CHEMICALS

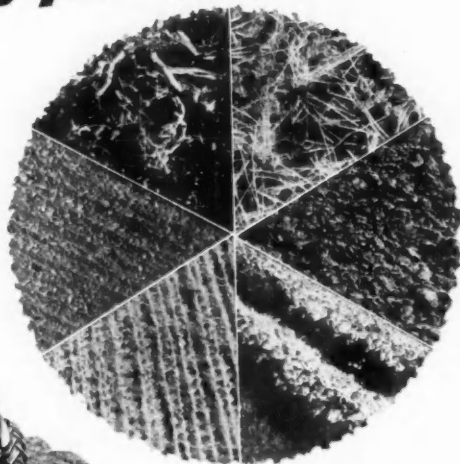
It pays to lead off with DN-289, Dow's NON-OIL dormant spray material for apples, pears, cherries, plums and pecans. Easy to mix, completely water-soluble—DN-289 controls bud moth, aphids including rosy apple aphid, scale insects, cherry case bearer, pear psylla, pecan nut case bearer and Phylloxera aphid and assists in reducing red mite population.

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Agricultural Chemical Department • Midland, Michigan

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WEED, BRUSH AND GRASS KILLERS • INSECTICIDES
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GRAIN AND SOIL FUMIGANTS • WOOD PRESERVATIVE



choose your **Cropped**



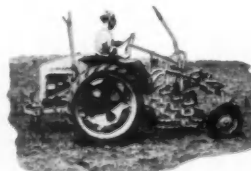
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Coil Shank Cultivator



CA 2-Row, DRIVE-IN Cultivator



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with **QUICK-HITCH TILLAGE TOOLS**

Deep or shallow, trash-mulched or smooth-surfaced, finely pulverized or loosely crumbled . . . whichever of a dozen soil conditions you need is at your command with an Allis-Chalmers tractor and its power-operated tillage tools.

A universal feature of all these A-C tractor tools is uniformly deep penetration without heavy weighting or forced pressure.

When you're headed for the field, it's: *One* — space CA or WD Tractor wheels instantly with engine power to fit the implement. *Two* — attach the tool quicker than you can hitch up a team. *Go* — with Hydraulic Power Control for new, outstanding field performance.

BETTER TILLAGE TOOLS FOR BETTER FARMING

Tractor-Mounted Plows • Pull-Type Plows • Mounted Disc Plows • Tiller Disc Plows • Bedders • Listers • Furrowers • Subsoilers • Chisels • Ridgers • Bedding Discs • Disc Harrows • Field Cultivators • Row-Crop Cultivators • Vegetable Cultivators

ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

DECEMBER 1951
VOL. 71 No. 12

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This month's cover shows Joseph Semes and helper using air power pruning shears on a wing-folding platform carried on a tractor, which labor-saving arrangement cuts pruning cost and time in half in Semes' apricot orchard in California. Photo by F. Hal Higgins.

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KEEP SCAB OUT WITH DU PONT "FERMATE"



TOUGH ON DISEASE. "Fermate" fungicide gives foliage and fruit of apples and pears sure protection against scab. It also controls cedar-apple rust, black rot, sooty blotch and bitter rot.

EASY ON BLOSSOMS, LEAVES AND FRUIT. "Fermate" is safe to use through the scab season, provides disease control without burning or stunting even tender young growth. Safe in hot weather, too.

BETTER YIELD AND QUALITY. Leaf growth reaches full vigor when protected with "Fermate." Helps make higher yields of larger fruit with better finish.

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IDEAL FOR MANY FRUITS. "Fermate" also controls grape black rot, brown rot of stone fruits, peach scab, cherry leaf spot, cranberry fruit rots and raspberry anthracnose and leaf spot.

See your dealer now for Du Pont "Fermate" fungicide and other proved Du Pont pest-control products. Ask him for free booklets, or write to Du Pont, Grasselli Chemicals Department, Wilmington, Delaware.

DU PONT CHEMICALS FOR THE FARM INCLUDE:

Fungicides: PARZATE* (Liquid and Dry), FERMATE,* ZERLATE,* Copper-A (Fixed Copper), SULFORON* and SULFORON*-X Wettable Sulfurs... Insecticides: DEENATE* DDT, MARLATE* Methoxychlor, LEXONE* Benzene Hexachloride, KRENITE* Dinitro Spray, EPN 300 Insecticide, Calcium Arsenate, Lead Arsenate... Weed and Brush Killers: AMMATE* 2,4-D, TCA and 2,4,5-T... Also: Du Pont Cotton Dust, Du Pont Spreader Sticker, PARMONE* Fruit Drop Inhibitor, and many others.

*REG. U. S. PAT. OFF.

On all chemicals always follow directions for application. Where warning or caution statements on use of the product are given, read them carefully.



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BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

KILL SCALE and other Harmful Insects! SUNOCO Self-Emulsifying SPRAY OIL

Thorough, year-by-year spraying with Sunoco Self-Emulsifying Spray Oil will pay off in healthy, pest-free fruit trees. Orchardists have relied on it for more than 25 years to control nearly all kinds of scale and other insects. Sunoco Self-Emulsifying Spray Oil is easy to use, can't be beaten for economy.

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LETTERS TO THE EDITOR

Fruit Yearbook Issue

Dear Editor:

I have just had an opportunity to examine your January, 1951 Fruit Yearbook Issue of AMERICAN FRUIT GROWER, and was impressed by the great amount of information it contained in its review of the previous year.

I should like very much to obtain a copy of your January, 1952 Yearbook issue with its review of 1951. Please let me know approximately when that issue will become available.
Chicago, Ill.

Roy J. Wirtzfeld

The story of the 1951 fruit year will be told in our January Yearbook number which will be mailed to subscribers January 1, 1952.

Frozen Cider

Dear Sir:

I was very much interested in the article, "Frozen Apple Juice," in your October issue.

My husband suffers all spring and summer with a severe pain in his knees, which disappears as soon as he starts drinking sweet apple cider in the fall and reappears when he can no longer obtain the fresh cider. I would like to have some of the frozen product, as soon as possible, to see if it would be as effective for him as the fresh sweet cider. For three years now cider has been of great help. I am hoping the frozen concentrate will be as helpful, for then he can have it all year around.
Brookheadville, Pa. Mrs. Irvin Altomose

French Hybrid Grapes

Dear Sir:

We are interested in Grape growing here, and I enjoyed the article on "French Hybrid Grapes" in the October issue. I already have 13 varieties of French hybrids and plan on planting several more.
Rosati, Mo.

L. E. Mullen

Dear Editor:

I surely appreciated the October number of AMERICAN FRUIT GROWER with the article, "French Hybrid Grapes," by Richard Wellington.
Golden, Colo.

John Morris

Dried Snitz

Dear Editor:

I believe articles like Eldon Banta's "Adventures in Processing" are very important to the grower searching for new markets rather than using the regular, worn-out channels that have been overcrowded for years.

I am in the Dutch section of Pennsylvania. We have endeavored for the past six years to sell our entire crop at our orchard and have been very successful. With larger crops coming on, I am looking for better markets and new products. We make several thousand gallons of cider each year, and the last two years we have started to make old-fashioned boiled-down apple butter. Last year we sold over 700 pints and 50 gallons during the fall season. We expect to double those figures this season.

Last week my wife told a customer that we were thinking of making dried snitz. He happened to be one of the head men in a Dutch organization that sponsors snitz and knep in 11 different communities in this section. He wondered if we could supply him with 500 bushels of snitz.

McIntosh and Stayman make up most of my crop. Can you give me any information on the making of snitz?
Wrightsville, Pa.

W. C. Mitzel

Dried snitz are, of course, dried apples; and we are happy to hear that reader Mitzel is well on the way towards developing a new market outlet. Autumn and winter apple varieties that have good cooking quality are well-suited to drying, so the McIntosh and Staymans are well adapted to this purpose. We have an extra copy of USDA Farmers' Bulletin 984, "Farm and Home Drying of Fruits and Vegetables," and are sending it along to Mr. Mitzel with our hopes for his success.—Ed.

The Good Old Days

Dear Editor:

It is winter. The chores have been done, milking over and the separating, cows all bedded down, the horses' mangers full of hay. Mother and Rose are finishing up the supper dishes. Pop has been making sure that Billy and Pete really fill the wood box. We're all gathering around the big base-burner. Sarah is looking at the pictures of dresses in the mail order catalogue. I've been cleaning the old rifle so I can go squirrel hunting. Jimmy is over in the corner reading "Ivanhoe." Mother puts a big basin full of apples on the table. When the evening is over, the basin is empty.
Long Eddy, N. Y.

Rev. Otis Moore

Handy Andy Booklet

Dear Sir:

Every year thousands of farmers invent many worthwhile labor-saving devices, some of which are included in your "Handy Andy" items.

Have these items ever been put into booklet form? If so, I would like a copy. If they have not, I think it would be a wonderful idea to put them into all farmers.
Yakima, Wash.

George Hall

The "Handy Andy" items have not been put into booklet form; but if there is enough interest, we shall certainly follow reader Hall's suggestion. If you like the idea, send us a post card.—Ed.

Adjuvants

Dear Sir:

We hope that you will sometime be in a position to run an article by a research man who has studied and evaluated the various spreaders and stickers for sprays. This very wet season has caused much of our spray to be washed away shortly after application.
Troy, Kans.

F. C. Baker

A good suggestion! We plan to supply reader Baker and others with facts on spreaders and stickers in our forthcoming February Spray issue.—Ed.

AMERICAN FRUIT GROWER

BETTER FRUIT AT LESS COST

With JOHN BEAN

All types of orchard automatic spraying needs are met by the John Bean line, now augmented with the Speedaire air-spraying attachment for high pressure sprayers, and the new Model 29-L Speed Sprayer.

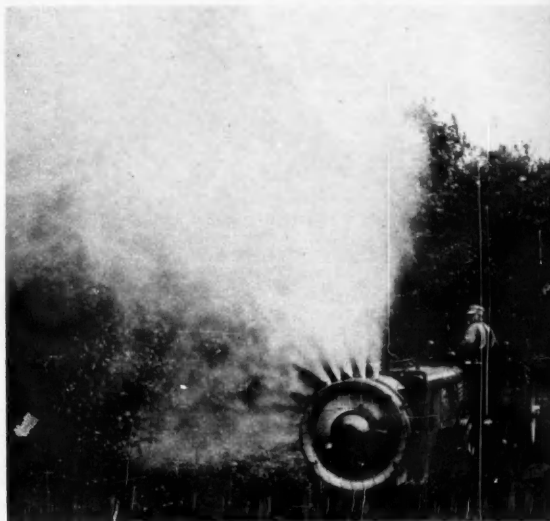
New! Low-Cost Spraying With Your High Pressure Sprayer And a John Bean SPEEDAIRE

MORE PROFITS through savings in time, labor, and materials, are advantages of using the one-man operated John Bean Speedaire attachment which easily converts your high pressure sprayer into a modern mist-sprayer. More air output with less power is obtained with a Speedaire because of the true axial-flow fan. The ten-blade, 29-inch propeller delivers air in large volume and high velocity for thorough coverage with either concentrate, semi-concentrate, or dilute spray materials.

Change spray direction in seconds with the single action converter. A single moving part lets you change spray to right, to left, or to both sides at ends of rows to take advantage of wind and save "deadhead" travel.

Fit the spray pattern to the size of the trees with the Speedaire adjustable height director. You get into the tops of the tallest trees and get the penetration you need for thorough coverage.

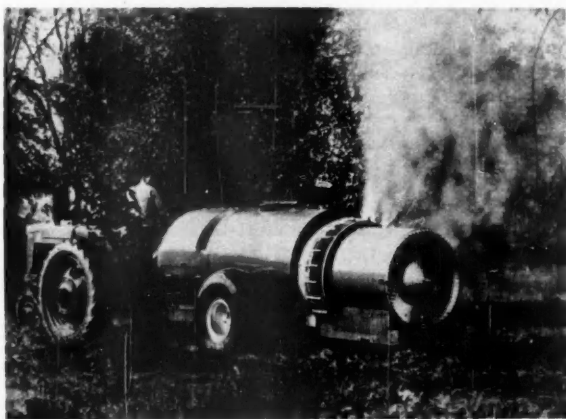
The new John Bean Speedaire is the answer to the need for a lower cost air-type sprayer. The Speedaire gives you true John Bean quality and performance—brings you features, convenience and savings never before available on this type of sprayer.



John Bean SPEEDAIRE gives thorough coverage.

Automatic Spraying with LOW-BOY

Labor savings are substantial when the John Bean automatic Low-Boy dilute spraying equipment is mounted on your John Bean high pressure sprayer. The Low-Boy operates on sprayers discharging 20 to 60 gal. per minute.



The new Model 29-L SPEED SPRAYER gives top performance

Smaller Speed Sprayer For More Profits

More growers can now enjoy the desirable extra protection, and labor savings for which John Bean Speed Sprayer is famous. The new Model 29-L brings true Speed Sprayer performance to the smaller orchard. You save labor with one-man operation. The tractor driver operates all controls, while spraying. Change spray direction to spray left, right, or both sides with instant changeover. You control spray height too, to fit the spray pattern to your trees. Spray dilute or concentrates with the 29-L Speed Sprayer to meet your day-to-day spraying needs. Speed Sprayer is also available in the model 36-L for larger orchards.

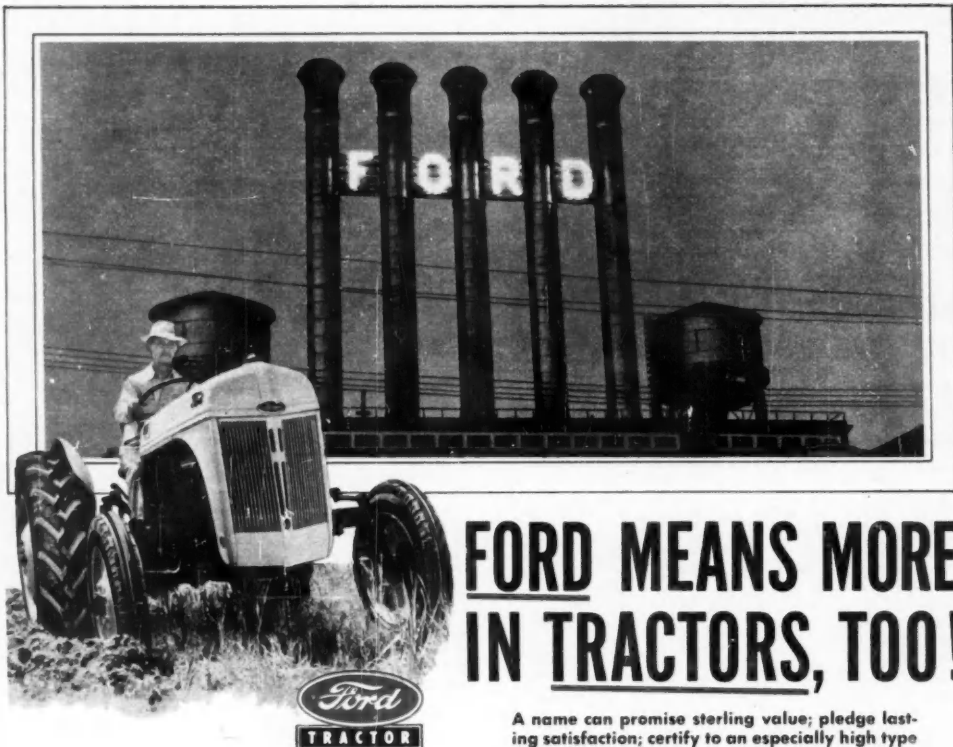
Ask your John Bean dealer for a demonstration, or write for new catalogs on Speedaire, Speed Sprayer, and Automatic Spraying. High Pressure sprayers available from 3 to 60 gallons a minute output, for all spraying needs.



John Bean

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FORD MEANS MORE IN TRACTORS, TOO!

A name can promise sterling value; pledge lasting satisfaction; certify to an especially high type of performance. A name can stand for productive genius that has changed the course of human history. A name can represent scientific research to create new prosperity and better living.

What the Name "FORD" on a Tractor Means to You!

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Parts Always Available
Modern Design and Engineering
Quality Clear Through
Top Value at Trade-In Time



If ever a name in business has come to mean all these things, that name is "Ford." It has held the confidence of three generations of Americans.

To millions of farmers, the Ford name recalls the cars and trucks that could always "get through"—and those early Fordson Tractors that did so much to speed the change to power farming. The Ford name is a reminder, too, of millions of dollars invested in soybean research which

opened huge new markets for this cash crop.

The name "Ford" on a tractor today has a meaning even beyond all this. It means volume production resources unique in the farm equipment field—engineering leadership—low price and a generous measure of extra value for that price.

And, finally, the name "Ford" is the symbol of a sound investment, for a Ford Tractor, even after years of use, will still bring a good price.

FORD TRACTORS and DEARBORN IMPLEMENTS

... the ideal working combination

Dearborn Implements are designed to team with the Ford Tractor, to give you faster, easier, more economical operation and better work on a sur-

prisingly wide variety of jobs. Let your nearby Ford Tractor dealer prove what a Ford Tractor can do for you—by an actual demonstration on your farm.



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Ford Farming MEANS BETTER WORK
... MORE PRODUCTION



Left—Power pruning tool in use.



This portable compressor furnishes power for two pruning shears.

PUTTING POWER INTO YOUR PRUNING

By FRED R. DREILING
Virginia Polytechnic Institute

ONE of the most important recent advances in fruit growing is the development of pneumatic power pruners. In an orchard practice so vital to the production of quality fruit, power pruning may mean the difference between profit and loss.

The use of power pruners is rapidly increasing among Virginia growers. Labor shortages occasioned by the national emergency are giving power pruning an added boost. This is the fourth consecutive year that power pruners are being used in fruit extension demonstrational work in Virginia and our experiences together with our observations in working with growers show that savings in labor ranging from 25 to 50 per cent are easily possible.

As for speeding up the pruning operation, R. E. Kerns, foreman at Crumpacker Orchards, Roanoke, Va., says, "With power pruning it takes us half a day to do what would require a whole day with hand pruning, and we are not as tired when we get through."

A requirement in power pruning is a portable air compressor. This compressor can be mounted on a tractor and operated by the power take-off or it can be operated separately by a gasoline engine. When a separate engine is used the unit can be moved through the orchard on a dolly or truck.

Some of the larger orchards use a compressor with 17 cubic feet per minute displacement and operate as many as six to eight leads. The size of the orchard operation governs the size compressor and number of leads required.

Another major advantage in using power pruners is the thorough job of pruning that can be done. This in turn results in a cleaner crop of fruit. In comparison with hand pruning, the power tool, in the same length of time, makes it possible for the grower to make more and smaller cuts. At the same time maximum bearing sur-

face is maintained and fruit of good size and color is produced.

Trees also are opened up better from the outside to give more thorough spray coverage and uniform light penetration. This is particularly true when the pruning is done from a platform.

In the past a type of "mule tail" pruning has been practiced in many orchards. This is the removal of all side branches from the main limbs on the inside of the trees, which leaves the outside wood thick. When pruning from the ground with a power

(Continued on page 28)



Hydraulically operated metal platform from which workers can easily reach top and inside branches of trees with power pruners was developed by Crumpacker Orchards, Roanoke, Va. Three metal catwalks slide out from either side of the platform.



IS MEETING TIME

OLE MAN WINTER was having a rip-snortin' time in the Midwest and parts of the East early in November. His appearance ahead of schedule may be a preview of what is in store for the country in the next few months. But despite any widespread philandering on his part, winter meetings of state horticultural societies—those stimulating get-togethers for growers and their families which climax another year of fruit growing activity will go on.

A preview of the programs that secretaries of the societies are hard at work planning shows that—to use the glamorous language of the theatre—a galaxy of stars stud the speakers' firmament. The stars include men of national repute, scientific men, and outstanding growers, and the subjects they will cover range from economics to the age-old problem of distribution of nature's most glamorous products, with emphasis on producing the kind of fruit the market wants and will pay for.

Exhibition halls and convention headquarters will be crowded with new models of equipment applicable to the fruit industry. And interspersed throughout these one-, two-, and three-day gatherings will be banquets and dances and gay moments and programs arranged especially for the ladies.

Some of the annual meetings are already history. Florida, Minnesota, Wisconsin, Iowa, and Montana report excellent turnouts for their October and November meetings, while the Oregon program for November 29-30

The portraits on this and the facing pages are of presidents of state horticultural societies who have helped guide the activities of their respective societies during 1951. **AMERICAN FRUIT GROWER** is proud to present these men to its readers. Each has attained this position of honor in his society by virtue of the high regard in which he is held by members. Some of these men may continue in office; others after the winter meetings will take their place among the past presidents and continue to help mold the organizations they have so painstakingly served.—Ed.

at Corvallis promised to be a hang-up affair.

Following is a preview of meetings to be held in December, January, and February. Where no preview is included the program is not yet complete.

NEW JERSEY—Dec. 2-5, at Atlantic City.

Keynoting the joint program of the 76th annual meeting of the New Jersey State Horticultural Society and the 46th annual meeting of the Vegetable Growers Association of America will be Raymond Moley, famous economist and journalist, and Dr. Harold E. Stassen, formerly governor of Minnesota and now president of the University of Pennsylvania, who will discuss "Freedom and Horticulture."

In addition to joint meetings, separate programs also have been arranged for fruit and vegetable growers by Arthur J. Farley of New Brunswick, society secretary since 1909, and VGAA secretary H. D. Brown of Columbus, Ohio.

Society headquarters—Claridge Hotel; VGAA headquarters—Marlborough-Blenheim.

WASHINGTON—Dec. 3-5, at Wenatchee.

Marketing, improving fruit quality, recent developments in pest control are among the timely subjects which will be stressed. Promising new varieties will be exhibited. A panel discussion on "Getting More Money to the Grower" will strike at the heart of many growers' problems, as will the round table, "What About Our Competitors," which will be handled by such authorities as Drs. Leif Verner of Idaho, J. R. Magnus of



H. N. Dybvig
South Dakota



Sam W. Skinner
West Virginia



William A. Benitt
Minnesota



E. J. Robinette
Michigan

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John Gillman
Utah



John P. Casper
Maryland

USDA, and R. C. Palmer of Summerland, B. C.

Question-box periods are an important part of the well-rounded program which Secretary J. C. Snyder of Pullman annually arranges.

KANSAS—Dec. 4-5, at Manhattan.

"A combination of a fine horticultural meeting and a great basketball game promises to make the 1951 convention a honey," says Secretary H. L. Drake of Bethel.

The game? The Kansas Wildcats and

Ohio State on the night of the 3rd. The speakers? Headliners include Dr. Julian C. Miller of Louisiana; Dr. A. D. Hibbard and Prof. H. G. Swartout of Missouri; and popular W. W. (Tubby) Magill, Kentucky extension horticulturist.

Subjects of interest to sweet potato growers are on the agenda, as the Kansas Sweet Potato Association is holding its meeting in conjunction with that of the society.

MICHIGAN—Dec. 4-6, at Grand Rapids.

The Civic Auditorium will again be the

setting for the society's 81st annual event. Secretary Don Hootman of East Lansing has arranged for Dr. M. E. Brunk, Cornell marketing specialist, to discuss effective apple merchandising. Another headline speaker, William D. Fitzwater of the U. S. Fish & Wildlife Service will discuss rodent control in the orchard. Humorist Nathan H. Gist is scheduled to turn smiles into laughs when he presents his topic, "The Wise and Otherwise," during the annual banquet.

Big commercial exhibits—60 of them!

CONNECTICUT—Dec. 6-7, at Hartford.

Marketing, pest control, and orchard nutrition are the broad subjects which will be covered during the society's 61st annual meeting, at Hotel Bond, says Secretary S. P. Hollister of Storrs.

Porter Taylor of the American Farm Bureau Federation, William Deane Haskins of the Maine Apple Committee, and Massachusetts grower Hamilton Lincoln will be featured speakers on marketing; and Dr. A. B. Burrell of Cornell, F. W. Southwick of Massachusetts, and A. L. Kenworthy of Michigan, on orchard problems.

Competitive fruit exhibits, for which prizes are awarded, are an annual highlight, as is the banquet during which a Certificate of Distinction is presented to an outstanding society member.

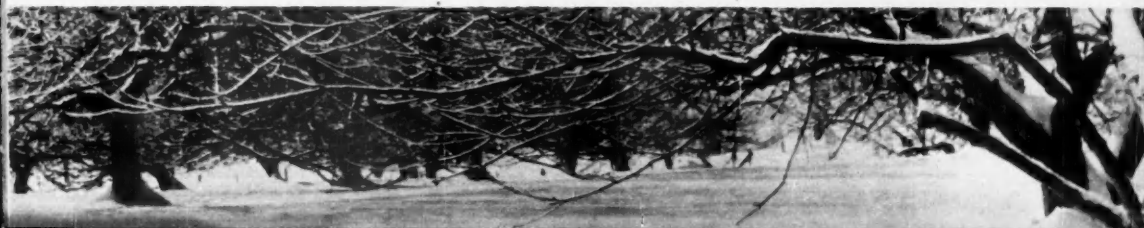
TENNESSEE—Dec. 6-7, at Chattanooga.

The 46th annual convention will meet at the Patten Hotel.

Dr. P. D. Peterson, Stauffer Chemical Co.; Dr. A. A. Nikitin, Tennessee Corp.; Dr. Oliver I. Snapp, USDA, Fort Valley, Ga.; and John T. Bregger, USDA, Clemson, S. C., will be featured speakers. W. F. Pretzer, president, Vegetable Growers Association of America, will be the keynote speaker for a special vegetable session, at the close of which a state-wide vegetable growers' organization will be formed.

Past presidents of the society will be honored at the annual dinner. L. A. Niven, of

(Continued on page 18)



HE TURNED TO POWER PRUNING

Adversity forced Ken Webb of Washington to simplify his pruning operations with the result that he successfully pruned expenses as well

By JACK R. WHITNALL

NO MARKET for his 1950 apple crop; no financing for pruning 30 acres of Winesaps, Delicious, Jonathans, and pears; arthritis in one shoulder; plus a knack for turning out Rube Goldbergish machinery that works led Kenneth Webb, Lower Naches, Wash., grower, to devise a power pruner set-up that is as efficient, economical, and easy to operate as any on the market.

Ken is a fruit grower by choice. With no previous experience in operating a fruit ranch, Ken bought his ranch of seven and one-half acres in 1944, added another 22½ acres the following year, and was in business as a fruit grower. But a late season in 1950, a wet October, plus the lack of a market, forced Ken into a position where by mid-winter of 1950, with no financing in sight for pruning operations, he found he would either have to prune the orchard himself or it wouldn't be pruned.

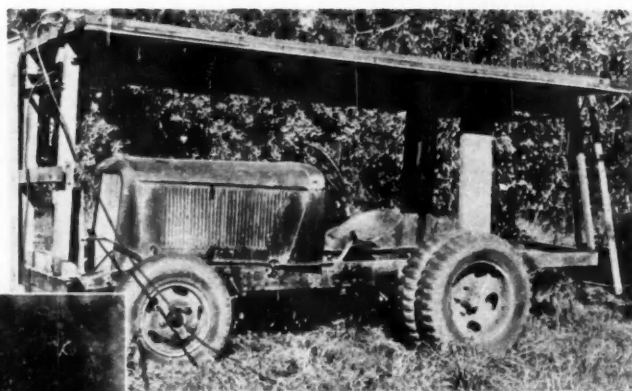


An arthritic condition in one shoulder put Ken into the mood for a power pruner. The trees on Ken's place are 42 years old, large, spreading, and average 16 to 18 feet in height.

Ken spent \$300 for the pruner, made by Neway Manufacturing Co., Springville, Utah; the compressor, made by Ingersoll-Rand Co., 11 Broadway, New York 4, N. Y.; and

valves and gauges. He had no idea what kind of a platform to build, but after a little study, he stripped an old horse-drawn orchard wagon of its wheels and springs. A 1935 one and one-half ton Dodge truck, converted into a tractor, was driven under the bed of the wagon.

He then built four stout corner posts from the frame of the truck



Home-made platform from which Webb does his power pruning.

During summer Webb converts his pruning "machine" to a duster.

Photographs by Author

to the corners of the wagon bed. The Ingersoll-Rand compressor was mounted at the rear of the Dodge frame underneath the platform. Power was to be derived from the motor of the truck, so Ken purchased an unusually large 18-inch pulley for his compressor.

Ken ran into several minor problems in getting the platform just the way he wanted it. He started out by

having a well-braced springboard at the front of the platform. He would drive into a tree head-on and work from the platform. Although this platform worked well in pears, he found that it was not maneuverable enough to work in the low-hanging branches of apple trees and that it caused too much damage to limbs. The final solution was the relocation of the platform and removal of the railing, thus leaving a perfectly flat, railless platform from which to work.

His method of operation is simple, with three moves to a tree, driving directly into the tree and stopping. The platform is six and one-half feet from the ground. This height plus six feet of Ken's own height and 30 inches on the pruner itself, gives a total reach of 16 feet from the ground. In most cases he does not have to get off the platform.

Ken has also worked out, in connection with the motor of his Dodge a governor that any mechanic would be proud to have invented. The com-

pressor has a relief valve and a certain number of r.p.m.'s must be developed before it starts compressing air. Providing the r.p.m.'s stay up, the compressor keeps on working. But many starts and stops, plus the driving from one tree to another, kept the popoff valve continually kicking.

Ken took a spray plant pressure governor and worked it over more or less backward in its operation into the carburetor of the Dodge, so that when the air pressure drops to approximately 105 to 110 pounds, it speeds the motor up a little and keeps the compressor working. It builds up to around 140 pounds, then it slows the Dodge motor down until it stops compressing the air. It works well, according to Ken, and saves wear and tear on the compressor and the Dodge motor, and conserves gas.

(Continued on page 22)

AMERICAN FRUIT GROWER

Balanced PRUNING OF GRAPES

By JOHN TOMKINS
Michigan State College

MANY growers of Concord-type grapes might obtain greater profits by pruning to a system called "balanced pruning." This system is based upon the fact that the capacity for fruit production varies greatly from vine to vine in the same vineyard. Maximum production may be obtained only by pruning vines according to their ability to produce.

The fruit and growth characteristics of the grape are distinctly different from many other fruits. Shortly after the buds start swelling in the spring a leafy shoot emerges from each bud and this shoot, before the growing season is completed, may attain a great length, sometimes 20 or more feet. Each shoot may bear three to four grape clusters or approximately one-half pound of fruit towards its base. After the shoot loses its leaves in the fall, it is called a cane.

An unpruned vine has many more buds than it can adequately supply with materials essential for good growth and yield. Thus, pruning is necessary to reduce the buds to a number the vine can readily support.

Grapes may be pruned any time after leaf fall in autumn until growth starts in the spring. Frequently, 90 to 95 per cent of the woody top is removed in the pruning operation. Thus, pruning may reduce a jumble of many canes to a select few which may be orderly arranged on the vineyard wires or trellis. The arrangement of canes on the trellis is called training. Vines in many vineyards are trained to the Four-Cane Kniffen system.

Under the Four-Cane Kniffen system, four canes are selected for fruiting and all others are removed by pruning. The canes selected for fruiting should be from the previous season's growth, have a diameter of one-fourth inch or the thickness of a lead pencil, and be well matured. Each of the four canes selected should have its origin as close to the trunk as possible, with two canes located near the top wire and two located near the bottom wire. One cane is tied to the right and another to the left of the trunk at the top and bottom wires, respectively.

Many canes under this system are pruned to 10 buds in length. Thus, many vines are pruned to 40 buds (10

buds on each of the four canes) without due consideration to the number they will support. This is a very common error regardless of the system of training used.

A vine has two competing phases of growth—fruiting and shoot or wood growth. The developing fruit has first call on the materials essential for growth. One may observe this the first year a vine is allowed to grow unpruned. It produces much fruit and very little shoot or wood growth. The weight of this growth as measured in the prunings is an index of the excess food not required by the fruit.

The number of buds which a vine should be permitted to retain is in direct proportion to the amount of wood (prunings) which it produces. This relationship was suggested by Dr. Newton Partridge of Michigan State College and recently was modified by Dr. Nelson Shaulis of Cornell.

It has been established for the Concord grape that the following rela-

tionship exists between weight of prunings removed and number of buds the vine will adequately support:

Five pounds of prunings, 70 buds.
Four pounds of prunings, 60 buds.
Three pounds of prunings, 50 buds.
Two pounds of prunings, 40 buds.
One pound of prunings, 30 buds.

The weight of prunings refers only to the weight of the one-year-old wood removed. That is the wood which made its growth during the previous growing season.

It is possible to come very close to "balanced" pruning in an entire vineyard by weighing the prunings from only a few vines. One might proceed as follows:

- 1) Estimate the weight of prunings on the first vine.
- 2) Calculate the number of buds the vine will support according to the above scale.
- 3) Prune the vine so as to leave a few more than this number of buds.
- 4) Separate out and weigh the one-year-old wood that has been pruned off.
- 5) Calculate the actual number of buds the vine will support.
- 6) Adjust the vine if too many buds have been left.

Now, one is ready to prune the rest of the vineyard in terms of pruning

(Continued on page 26)

FRUIT PEST HANDBOOK

(NINTH OF A SERIES)

PLUM BLACK-KNOT



Black-knot
on cherry.

Photograph
Courtesy
USDA

PLUM black-knot is a fungus disease characterized by the development of black, roughly elliptical swellings on the branches of plum and cherry. It is a native American disease occurring on wild plum and cherry trees. Spores from these wild hosts are blown to the cultivated trees. Damson plum and various varieties of sour cherry are especially susceptible, while Japanese plums and sweet cherries are rarely attacked. In the early spring, spores are produced in and upon the swellings or knots. Under favorable conditions these spores may infect other twigs or branches.

Control. The first step in the control of this disease is to destroy all infected wild plum and cherry trees in the immediate vicinity of cultivated plantings. If there are only a few knots on the cultivated trees, the disease is easily controlled by cutting out and burning the diseased parts.

This operation is best carried on in the fall after the

(Continued on page 26)



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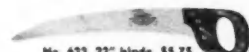
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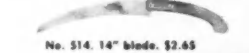
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WASHINGTON FRUIT LETTER

- No Federal Rain-Making Legislation Expected
- Farm Girl Trek to City Alerts Home Economists to Action

By LARSTON D. FARRAR

Washington Correspondent, American Fruit Grower

CONGRESS will not pass a law regulating rain-making in the forthcoming session. Unless someone gets more excited about the faults of rainmakers than now, it isn't likely administration leaders will give much, if any, priority to this touchy subject.

What is likely is that a bill calling for creation of a congressional committee to study and evaluate public and private experiments in weather modification techniques will be passed. This legislation was introduced jointly in early October by some 10 senators and will be studied by the Senate Committee on Interstate and Foreign Commerce.

Legislators believe tremendous strides will be made in weather making within a few years and that perhaps it would be better to wait until the need for federal controls will be more apparent.

BUSINESS is worried about operating on slim steel, copper, and aluminum allotments handed out by NPA for the first quarter. And word around NPA is that second-quarter allotments will be even more skimpy.

Eventually, such cuts will be felt in your orchard. It appears inevitable that farmers will be experiencing difficulties, by mid-1952, in obtaining variety or quality in the equipment, machinery, and appliances they can buy.

Materials allocations to the packaging machinery industry, for instance, will be reduced for the first quarter so much that hundreds of men will be cut off unless the manufacturers can convert to work on machine tools. Representatives of the Packaging Machinery Industry Advisory Committee said, in fact, that some companies already have converted 50 per cent of their facilities to military production.

FIFTY YEARS of research in the improvement of fruits and nuts have brought almost unbelievable changes to these crops. Dr. J. R. Magness of the Bureau of Plant Industry pointed out here during his bureau's Golden Jubilee Celebration.

After detailing many notable gains in research in disease control, plant breeding, etc., Dr. Magness asserted: "We have made only a minor start on the development of disease resistance in fruits. . . . The possibilities for solving this and related problems are as

broad as the vision of the research worker."

THERE'S a perennially popular refrain that runs like this: "How're you goin' to keep 'em down on the farm, after they've seen Broadway?"

During other periods, keeping "em down on the farm" referred mostly to men. Now, the refrain refers to girls, who are leaving rural areas in record numbers, refusing to return.

A conference of women extension workers from more than 30 states, meeting here recently, listed these as reasons why girls are going away from farms:

1) The girls go away to school and find town or city men more attractive.

2) Many farms do not have the modern conveniences—bathrooms, running water, etc.—that appeal to girls who have enjoyed these comforts in cities.

3) Farm girls do not get an economically even break with their brothers generally. The boy is promised a share of the farm, etc., if he will train, but the girl has to find someone who owns land to be as well fixed comparably. Also, boys seem to get privileges—such as using the family auto, etc.—denied to the girls.

4) Farm girls are supervised too rigidly by their parents.

The women home economists have many solutions for these problems—ranging from that of urging farm boys to shave more often to the establishment of more social clubs among farm groups and in small towns.

Actually, the migration of girls from farms to cities is only part of a social pattern that has been developing for 50 years, accentuating with each war or "emergency." For instance, farm population as a whole dropped by one million between April, 1950, and April, 1951, according to the U. S. Bureau of the Census. Total farm population now is 23,276,000 compared with 29,047,000 in 1940.

THE official count of subject matter specialists in State Extension Service work, as of the end of 1950, shows that horticulture is faring right well. Full and part-time workers by subject were listed as follows: Agricultural economics, 250; agronomy, 197; horticulture, 175; agricultural engineering, 156; dairying, 149; animal husbandry, 125; and poultry, 101.

AMERICAN FRUIT GROWER

THE QUESTION BOX

Should I prune my grape vines this fall or wait until next spring before growth starts?
—Ohio

The best time to prune grapes is after the period of coldest winter temperatures is over. If possible wait until late February or March, but prune before buds become swollen as they break off easily. Do not prune on very cold days as canes become brittle and may be injured easily.

We have 50 acres of apples here in northeastern Georgia and have a problem on our hands. Can you suggest a program for overcoming bitter rot on our Grimes, Stayman, and McIntosh? We have used everything with no results to date.—Georgia

- 1) Remove and destroy all fruit mummies which carry the bitter rot spores.
- 2) Remove cankers and dead wood. In most cases, bitter rot cankers will be found on relatively small limbs and can easily be removed simply by sawing or cutting off the limbs. Cankers on large limbs should be cut out and the cut places sterilized.
- 3) Remove infected fruits in so far as possible during the growing season.
- 4) Spray with a 4-4-50 Bordeaux mixture, making at least one application before the disease appears. A recommended spray schedule times the first spray about June 15; the second, about July 1; the third, July 15 to 20; and the fourth, August 1 to 5.

These methods nearly eradicated the disease from one of the worst infected orchards in the United States and had it under control during the very first year.

What is the best temperature and humidity for proper storage of Jonathan and Delicious? We have a large cold storage room, about 11x12x7, operated by a thermostat, with forced circulation.—Illinois

Recommended temperatures for apple storage vary depending on the variety, length of time apples are to be stored, and efficiency of storage and refrigeration equipment. For Delicious, a temperature of 32° is best if the apples are to be held until February, with a relative humidity of 80 to 90 per cent. For Jonathan, a slightly higher temperature (36° F.) is preferred to avoid storage diseases that develop at low temperatures.

Where can I find the latest means of controlling anthracnose in black raspberries? It seems to me that with all the new types of sprays, there should be one spray for this fungus by now. Also, where can I buy a good book on raising raspberries?—Kansas

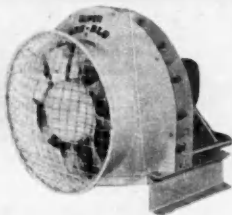
For anthracnose, apply one-half gallon of Elgetol or Krenite to 100 gallons of water when the tips of the buds are showing green. This is a delayed dormant application. To the above mixture, add three ounces of triton (BL-956). Follow this with two pounds of ferbam to 100 gallons of water applied one week before bloom.

An outstanding book about raspberries is *Small Fruit Culture*, second edition, by James Shoemaker. The book may be obtained by sending \$4.00 to the Book Department, AMERICAN FRUIT GROWER, 106 Euclid Ave., Willoughby, Ohio.

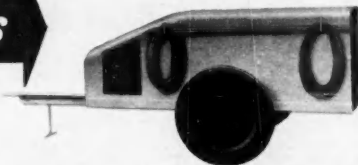
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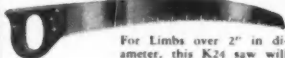
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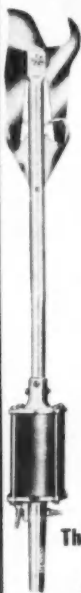
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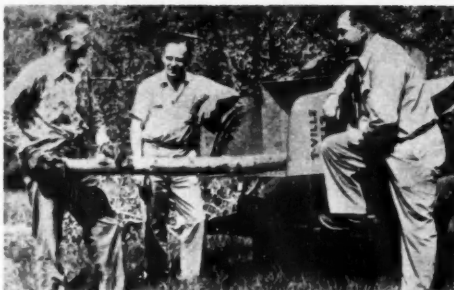
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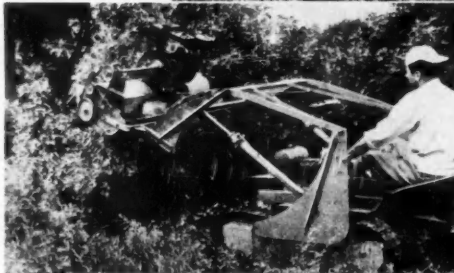
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5 WAYS FOR QUICK BRUSH REMOVAL



The Chipper "mulches" prunings up to 6" in diameter; blows chips under trees; cut cost of handling prunings two-thirds in Gilbert Wiley Orchard, Somers, Conn. Made by Fitchburg Engineering Corp., Fitchburg, Mass.

Weeds, foliage, and brush are readily "chewed up" by the Roto-Beater, manufactured by Olson Mfg. Co., Boise, Idaho. The need for diskings is eliminated.



Mott Hammer Knife Mower cuts weeds and brush and by means of hydraulic lift of Mighty Mouse Balldoser "removes" branches and trees up to 4" in diameter. Equipment made by Mead Specialties Co., 4114 N. Knox Ave., Chicago 41, Ill.

Cultivating cover crops and cutting prunings are done simultaneously with the Culti-Cutter, made by Edwards Equipment Co., Yakima, Wash. Rolling-chopping blade action leaves pocket-like holes which hold moisture, stop erosion



Brush shredders are sometimes used on a custom basis or owned co-operatively. The Hercules, above, can cover 3 to 10 acres an hour; shreds brush up to 1½" in diameter. Made by Valley Foundry & Machine Works, Inc., 710 H St., Fresno 18, Calif.

AMERICAN FRUIT GROWER

A NEW METHOD OF PRUNING

LARGE Golden Delicious apples were produced last year by the use of a different type of pruning. It has been customary to remove weak wood which is making little terminal growth to avoid small apples which such branches bear. Even when combined with chemical thinning this has not been enough of a stimulus to give good fruit size in northern areas.

Last year a new theory was used in several orchards on trees overloaded with blossom buds. The weak wood was not removed; instead, each and every small branch was cut in the middle. The result was a vigorous growth with large leaves near where the cuts were made as early as full blossom time. This gave uniformly large apples at harvest.

The height of the tree should also be reduced by a very few large cuts, to make spraying and harvesting easier. When good apples are borne throughout the bottom of the tree, there is no longer interest in the tall top, although the better apples were formerly borne there because growth was better there.

The time required to do this type of cutting is about that needed for hand thinning. There is a great saving of labor at harvesttime as small cull apples need not be picked and graded out.

Fewer Buds—Bigger Fruit

While as many as two-thirds of the blossom buds are cut off, a full crop is obtained because of higher percentages of set and much greater fruit size.

Enough terminal blossom buds were formed in 1950 on many of the trial trees to give good off-year crops this season. Pruning would not be done in the alternate year when there is a lighter blossom.

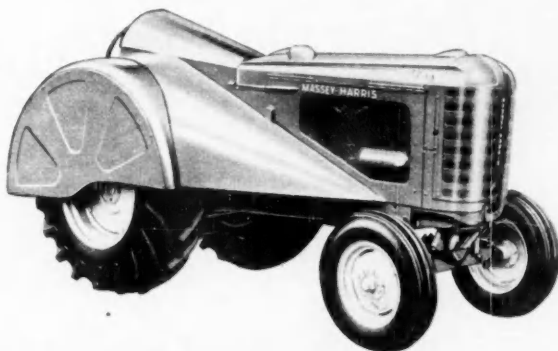
This approach to obtaining good apple size would have less use in southern orchards where chemical thinning and ordinary pruning give large apples.

This year similar striking results were obtained with other varieties having too many blossoms, as Jonathan, Red Delicious, Transparent, and Wealthy. Varieties which cluster, as Transparent, need chemical thinning.

Do not use this type of cutting on McIntosh. This variety has a different fruiting habit, particularly its optimum cropping when making relatively little growth.—R. H. Roberts, University of Wisconsin

DECEMBER, 1951

More Protection for Tough Orchard Work

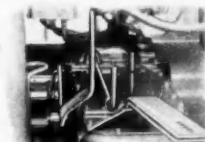


Massey-Harris 44 Orchard Tractor

The Massey-Harris 44 Orchard Tractor is specifically designed for grove and orchard work — built low to get close to trees that are pruned low — shielded to protect blossoms, fruit, and operator — with more power than any other tractor in the 3-4 plow class . . . power to handle a big disc in heavy cover crops, to pull the spray rig up hill.

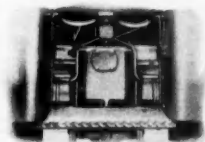
With all its power, the No. 44 is a surprising fuel-saver. You cover more acres on fewer gallons.

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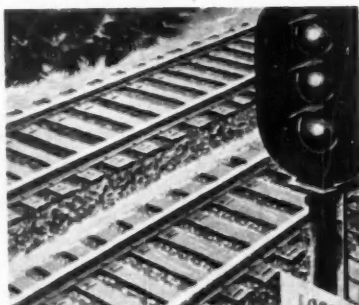
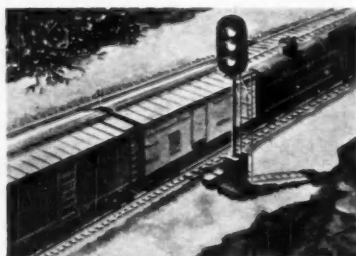


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MEETING TIME

(Continued from page 11)

Memphis, one of their number, will act as toastmaster.

Due to the resignation of Prof. G. M. Bentley, who served as secretary-treasurer for some 40 years, and constitutional changes which have been proposed, the business session will be an important one, says Secretary A. N. Pratt of Nashville.

PENINSULA—Dec. 6-7, at Salisbury, Md.

General theme of the 65th annual meeting of the Peninsula Horticultural Society will be "Research Findings for Farm Profit," says Secretary Robert F. Stevens, of Newark, Del., with the first day of the two-day convention devoted to vegetable subjects and the second day to fruits, with special emphasis on concentrate sprays. Featured speakers will include Dr. R. B. Corbett of the National Association of Food Chains and Lionel Newcomer of Berks-Lehigh Cooperative of Pennsylvania.

ILLINOIS—Dec. 11-13, at East St. Louis.

East St. Louis was selected for the 96th annual meeting of the society and the 2nd annual meeting of the Illinois Fruit Council because of its location in relation to the major fruit-producing areas of the state and because of its proximity to St. Louis, a feature that will appeal to the ladies, says Secretary Harvey B. Hartline of Carbondale.

First and last days of the joint program will cover production problems. On the second day the subjects of marketing and economics will be bombarded. A USDA authority is scheduled to present the PMA apple price-setting method while Samuel Fraser, IAA secretary, will present views which question the value of the PMA program to the industry.

A feature of the banquet will be the 95% Clean Apple Club awards.

MARYLAND—Jan. 3-4, at Hagerstown.

"Let's Do It Better" about sums up the program for the 54th annual meeting at Hotel Alexander, says Secretary A. F. Vierheller of College Park. Marketing will receive attention but mainly the topics will consider production of a product the market wants and will pay for.

The latest in chemical fruit thinning, pre-harvest sprays, and new spray chemicals will be considered. A New England speaker will picture the McIntosh apple situation up there as it affects the early apple market of the Appalachian section. That destructive little orchard mouse will come in for discussion. The peach situation as regards present and future plantings will be considered.

An excellent fashion show is being arranged for the ladies.

VIRGINIA—Jan. 7-9, at Roanoke.

The Virginia society at its 56th annual meeting, at Hotel Roanoke, will be host to the American Pomological Society.

While about 75 per cent of the program will pertain to production, John Watson of Staunton predicts there will be more interest in marketing than in any previous meeting during his period of secretaryship of the Virginia society.

Headline speakers on apple merchandising will include Dr. M. E. Brunk of Cornell and C. B. Houck of Roanoke. Production problems will be handled by Dr. H. B. Tukey of Michigan, president of APS and associate editor of *AMERICAN FRUIT GROWER*; Frank Horsfall of Blacksburg; Dr. D. A. White of Pennsylvania; and A. E. Mitchell and Prof. Stanley Johnston of Michigan.

AMERICAN FRUIT GROWER

Banquet speaker will be Samuel Fraser, secretary of the International Apple Association. A student speaking contest and presentation of Wilder Medals by the APS are additional banquet headliners.

WESTERN WASHINGTON—Jan. 8-10, at Puyallup.

Special programs on berry crops, vegetables, and ornamentals, featuring particularly strawberries, red raspberries, and blueberries; broccoli, cauliflower, peas, and sweet corn; and bulbs and other commercial ornamental crops are in store for growers, says Secretary C. D. Schwartz of Puyallup. A half day's program on "What's New in Agricultural Chemicals" will reflect what President Morrill Delano reports as a growing interest in up-to-date technical information on orchard chemicals.

MASSACHUSETTS—Jan. 8-10, at Worcester.

Following the pattern of previous highly successful programs, two afternoons of the three-day program will be devoted to tree-fruit panel discussions on production and pest control and two forenoons to panels on distribution and marketing, says Secretary W. R. Cole of Amherst. An all-day program will take care of small fruits. A conference on deer damage laws will try to find some satisfactory setup that will be fair to producers, sportsmen, and enforcement agencies. A trade exhibit is part of the program.

As we go to press word reaches us that Ulysses Prentiss Hedrick, one of America's most famous horticulturists, passed away at Geneva, N. Y., on November 14, at the age of 81.

INDIANA—Jan. 9-11, at Indianapolis.

The dates for the three-day meeting have been changed from Jan. 16-18 but the meeting place—Murat Temple—remains the same, says Ray Klackle of West Lafayette, energetic society secretary.

All program subjects, including marketing and advertising, will be beamed to Indiana conditions. John Davidson of Dow Chemical Co. will give growers first-hand information on chemical blossom thinning. Concentrate spraying will be ably presented by Prof. C. L. Burkholder, while troublesome apple rots will be discussed by Drs. E. G. Sharvelle and J. R. Shay, all of Purdue.

Big commercial exhibits will afford growers an opportunity to keep posted on supplies and their availability.

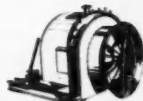
ARKANSAS—Jan. 11, at Springdale.

The list of speakers during this one-day meeting will be for the most part from the University of Arkansas. Apple insect control, marketing of grapes, a panel discussion on horticultural crops for processing, are some of the subjects to be covered, says Secretary Earl J. Allen of Fayetteville. Since Arkansas is one of the larger broiler-producing states, Elbert Graham, fruit grower and past president of the society, will discuss correlating horticulture and broiler production.

NEW YORK—Jan. 15-17, at Rochester, Jan. 22-24, at Kingston.

Marketing and promotional problems will claim one-third to one-half of the program at both meetings, says Secretary D. M. Dalrymple of Lockport. Serious discussion will be given the use of marketing agreements in dealing with processors. On that portion of crops marketed fresh the encouraging results of the promotion program (Continued on page 20)

Cut spraying costs!



Blo-Spray—New, improved, Blo-Spray is the most advanced unit for converting a high pressure sprayer to an air blast sprayer.



Air Blast Sprayers—Wide range of sizes and models for both dilute and concentrate sprays. Many exclusive features.



High Pressure Sprayers—Only Hardie builds eleven pump sizes and a wide variety of models so that the grower can buy exactly the capacity his need requires.



Orchard and Row Crop Dusters—Exclusive, patented new features cut cost and increase efficiency of pest control by chemical dust.



**One-Man
Spray
Booms**

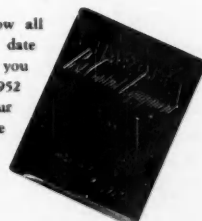
—For one and two side orchard spraying, and big volume row spraying. Easily attached to any high pressure sprayer of adequate capacity.

SPEED and ease of application are designed and built into every Hardie sprayer. Excessive waste of spray material is eliminated by the quick, complete coverage Hardie high pressure gives you. The big, strong Hardie works up to its maximum ratings at slow speed and for long sustained periods of operation without faltering.

Hardie Blo-Spray, an advanced, perfected blower unit, economically converts any high pressure sprayer to an efficient air blast unit. Easily installed. Does not interfere with use of hand guns.

There is practically no upkeep cost to a Hardie. This year Hardie offers many new improved units that will help every grower roll back cost of crop production.

You won't know all about up to date sprayers until you see the Hardie 1952 catalog. Ask your dealer or write for your copy.



THE HARDIE MANUFACTURING CO., HUDSON, MICH.

3825 Santa Fe Ave., Los Angeles 58, Calif. • 1435 N. W. Northrup

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Export Dept.:

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PEST CONTROL EQUIPMENT

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PORTER

HKP

PRUNING TOOLS and Cutters NEW! One-Hand Pruners

Two new, popularly-priced pruners designed to cut better and easier and last longer! Plastic-covered comfort grips. Positive thumb lock.

DURACUT (saw type)
DURASHEAR (shear type)

TWIN-CUT No. 9 PROFESSIONAL ONE-HAND PRUNER—designed for the constant user for clean, close work.

POINTCUT PRUNER—for orchard and nursery.

GOOSENECK PRUNER—popular for citrus pruning.

FORESTER LOPPING SHEARS—heavy duty brush cutter. Cuts up to 2" greenwood.

POLE PRUNERS for all tree trimming.

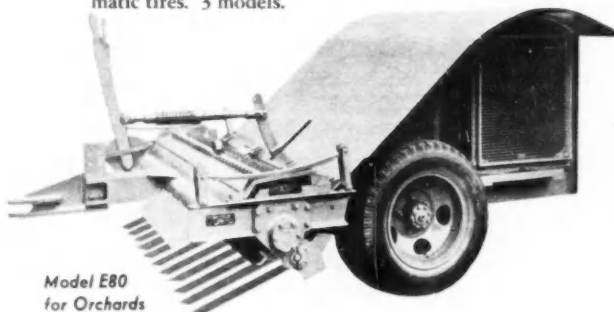
There's a Porter Pruner for every job... whether you want to cut 2" greenwood or sprout and sucker growth... cut in throat of jaws or at points... cut in high places or close to ground. All are designed to cut clean and close. Cuts heal quickly and cleanly.

Also a complete line of cutting tools for all types of cutting: wire, wire rope, cable, bolts, nuts, chains, etc. plus chain repair tools. Send for catalogs of Porter Pruning and Cutting Tools.

H. K. PORTER, INC., Somerville 43, Mass.

ONE STEP from Brush to Humus! **HERCULES** Brush Shredder covers from 3 to 10 acres per hour!

Picks up, "chews" and spreads pruning brush. The Hercules handles up to 1½" diameter (no danger from larger brush). Heavy duty pneumatic tires. 3 models.



Model E80
for Orchards

VALLEY

SEND FOR BULLETIN H101
FOUNDRY & MACHINE WORKS, INC.
Fresno, California

MEETING TIME

(Continued from page 19)

will be reviewed and steps taken to increase grower participation.

Production problems will be discussed from the point of view of keeping costs down by reducing number of sprays through concentrates and better pruning; use of chemicals for thinning, color improvement and "stick on."

Commercial exhibits always are a big feature of the Rochester meeting.

MAINE—Jan. 16-17, at Lewiston.

The Maine Pomological Society's winter meeting will be held in conjunction with the Annual Trades Show Exhibit. Current orchard problems will be the order of the day on the 16th while marketing and promotional problems will be tackled on the 17th. The Apple Committee will select the 1952 Maine Apple Queen, says Secretary Rockwood N. Berry of Livermore Falls, and King Apple will hold the limelight during this week of Maine's annual promotional effort called "Maine Apples on Parade."

SOUTH CAROLINA—Jan. 23-24, at Spartanburg.

Secretary, Roy J. Ferree, Clemson.

NEW HAMPSHIRE—Jan. 29-31, at Durham.

The society's 58th meeting will be held in conjunction with the trade show, at Putnam Hall, University of New Hampshire. Secretary Dan Batchelder of Durham reports that a good display of equipment will keep growers up-to-date on what's available.

The first day's program for apple growers will include discussions on maggot control, importance of minor elements in controlling scorch and cork spot, effect of the new hormones on ripening of apples, and the result of advertising on apple sales. The second day will include topics of interest to both fruit and vegetable growers, while the third day is being planned for vegetable growers with topics on fertilizers, varieties, and pest control.

The price of the banquet, which will be served by First National Stores, is a box of N. H. Fancy apples. The apples will be on



"OUR MISSION IS TO ENCOURAGE
MORE AND BIGGER PIE MAKING."

American Fruit Grower

AMERICAN FRUIT GROWER

display at the meeting and then displayed at First National Stores throughout the state.

PENNSYLVANIA—Jan. 29-31, at York.

The three-day meeting at the Yorktown Hotel, says Secretary John U. Ruef of State College, will feature such speakers and subjects as Dr. Max E. Brunk of Cornell on fruit marketing research; Truman Nold, National Apple Institute secretary on the fruit outlook; Prof. C. J. Birke-land of Illinois on the possibility of replacing Stayman with varieties equal in quality but with fewer hazards, as well as Penn State authorities on chemical thinning and preharvest sprays, soil management, fungicides and insecticides, while County Agent M. T. Hartman of Gettysburg will tell how growers in Adams County get big yields. "The Women Also Promote Apple Sales," by Mrs. F. E. Griest, president of the woman's auxiliary, should stir up a lot of enthusiasm among the ladies.

UTAH—Feb. 1-2, at Salt Lake City.

Secretary, Gene H. Oberly, Logan.

WEST VIRGINIA—Feb. 6-8, at Martinsburg.

Secretary, Carroll R. Miller, Martinsburg.

IDAHO—Feb. 7-8, at Boise.

Growers will stress the quality factor of fruit production during their two-day meeting—the society's 57th—at Hotel Boise, says Secretary "Tony" Horn of Boise. Panel discussions by growers and shippers will be held on fruit handling and marketing. Leif Verner of U. of I. will discuss prune maturity and quality.

Recognizing the fact that home canning is on the decline, canner-grower panels will endeavor to promote better understanding between processor and orchardist. The strawberry certification program just being launched will be explained by "Red" Helton of U. of I. Marketing panels will discuss the relatively new California market for apples.

An interesting luncheon meeting program is being planned for the ladies.

GEORGIA—Feb. 14-15, at Athens.

A two-day fruit conference, to be held at the University of Georgia, is being arranged under the direction of Dr. Francis E. Johnstone, Jr., chairman of the horticultural division, and Extension Horticulturist George H. Firor. The first day will be devoted to growing and marketing of apples; the second, to strawberries, grapes, and other small fruits. The conference will be developed around short talks, round-table discussions, and demonstrations. Out-of-state speakers will be Dr. Raymond C. Scott of Ohio and Dr. W. P. Judkins of Virginia.

OHIO—Feb. 20-22, at Cleveland.

The country's oldest horticultural society will hold its 105th annual meeting in the Cleveland Hotel. Ample space for commercial exhibits will be available.

General theme of the meeting will center around "Growing fruit for your market" as contrasted with "Marketing fruit that you grow," points out Secretary C. W. Ellenwood of Wooster. Some growers may want to grow fruit for the processor and this may require growing different varieties than where the market is mainly for fresh fruit. The theme will be carried through both tree and small-fruit discussions.

The ladies' program includes a visit to famed Nela Park where General Electric beautifully demonstrates in its "Horizon House" the latest recipes for practical and interesting home lighting.

DECEMBER, 1951

Proven in 1951 **AQUA-JET** BLOWER



BEST PATTERNS YET!

ATTACHABLE to any make or type of high pressure sprayer

DOWN TO 4 GPM Per Side

... designed especially for use with concentrates or semi-concentrates.

Permits adaptation of the Aqua-Jet Principle to power sprayers having insufficient capacity to operate the direct-projection Aqua-Jet Boom.



Adjustable TWIN JETS
Atomization occurs outside (in space) the 6 Aqua-Jet Heads. Pump pressure is converted to long projection instead of choke loss. Jet tips are renewable and interchangeable. 11 different capacities available.

The Aqua-Jet Blower is a wholly new and surpassing kind of orchard spraying equipment. It is a quickly attachable conversion unit that makes any power sprayer give remarkable performance. Exclusive Hurst Hi-Quad hydraulic control instantly operates both sides either separately or together at the touch of a finger. Its dual projection principle produces incredible projection and full coverage patterns. The six impinging jet atomizing heads generate a long-carry air draft due to pump pressure alone—therefore when the blower air-stream is added the billions of tiny droplets receive the extra acceleration that easily carries them 25 to 40 feet!

one man operation

NEW Ball-Type Ratchet Control Valve

Opens and closes by pulling cable. Simple—positive—best manual control.

Built-in HYDRAULIC Tractor Seat Controls

The exclusive Hurst engineered Hi-Quad Hydraulic Control System gives instantaneous finger-tip control from the tractor seat. Either or both sides of the blower operate on or off, together or separately.

HURST Industries, Inc.
(Subsidiary CARDON CORP., Chicago)
SAN JOSE, CALIFORNIA
Eastern Distributor: **NEWTON CHEMICAL & SUPPLY CO.,** Bridgeville, Delaware

POWER PRUNING

(Continued from page 12)

Another item Ken has added is an anti-freeze unit. When the weather was very cold, Ken had trouble with water vapor from the compressor freezing in the gun and clogging valves. So Ken filled the oiler with anti-freeze, opened it just a little so only a drop of anti-freeze was admitted at a time, and the gun now works at any temperature. However, a warning—do not use alcohol, as the vapor blowing from the gun is terrific, according to Ken.

Ken has two compressor tanks on his rig. He finds that when he pulls into a tree where he has to make only 50 to 75 cuts, he can shut the motor off on the truck and make approximately 120 cuts, with a pressure drop to only 90 pounds. Ken estimated the number of cuts to a tree to average not less than 500, sometimes as many as 750. Of course, he found that he made more cuts with a power pruner than with a hand pruner. Large limbs, for instance, he cut several times.

Costs

Ken's pruning machine is a double-purpose machine — in summer he strips off the platform and, using the

same power take-off, converts to a duster. Including original investment in the Dodge, bought several years ago, plus the cost of the duster, Ken estimates he has just \$1,000 invested in his duster and pruning platform.

Pruning costs for the spring of 1951, when he pruned approximately 20 acres of his 30 acres, he figured at 50 cents per tree, which included the \$300 cost of building his pruner. This winter he believes the cost should be not more than 20 cents per tree. Hand labor in Yakima and vicinity averages from 75 cents a tree for small trees to \$1.25 for large trees, of which Ken has approximately 750.

THE END

To make it easy for you to locate information on fruit production, insect and disease control, building plans, and other information vital to the successful operation of your fruit farm, we have prepared an index of all the articles which have appeared in **AMERICAN FRUIT GROWER** during the year. This index filed with your 1951 copies will give you a year's information at your fingertips.

For a copy of the index, simply send a post card request to

AMERICAN FRUIT GROWER
104 Euclid Ave., Willoughby, Ohio

NEW EARLY BERRY

A NEW red raspberry variety, named Early Red, has been announced by the Michigan Agricultural Experiment Station. It originated from a cross between Lloyd George and Cuthbert made in 1931 at the South Haven (Mich.) Experiment Station. In addition to a long period of trial at the station, it has been commercially tested for the last 10 years in the famous raspberry-producing area near Benton Harbor.

As its name implies, the variety starts maturing its fruit before other raspberry varieties are on the market, and the ripening season is long. The fruit is large and easy to pick while firm, an important factor in raspberry harvesting.

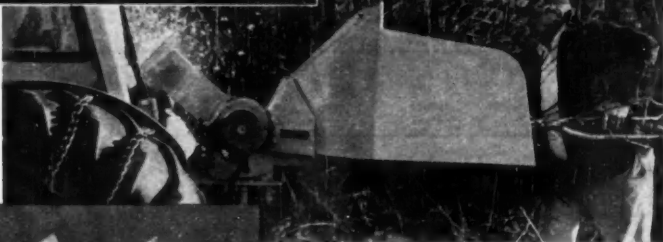
Much of the excellent flavor of Cuthbert has been inherited by Early Red, according to Stanley Johnston, superintendent of the South Haven station. The berries withstand canning without crumbling and freeze as well as Latham, the leading commercial red raspberry.

To date virus diseases have not been found in test plantings.

The limited number of Early Red plants available are being distributed among nurserymen specializing in raspberry plant production.

THE FITCHBURG CHIPPER

● There just isn't any brush problem if you use a Fitchburg Chipper. As fast as prunings are cut from the trees, they can be fed into the hopper and converted into useful mulch. The Fitchburg Chipper is the fastest and most economical machine for this purpose.



EASY BRUSH DISPOSAL

from fast working power-driven loppers and shears is now possible with the Fitchburg Chipper. This sturdy, powerful and fast cutting machine can be either tractor or truck mounted. It cuts either large or small branches with equal facility.

Write today for prices and details.
State maximum size of prunings.

FITCHBURG ENGINEERING CORPORATION
FITCHBURG MASSACHUSETTS

CHAIN SAWS CUT LABOR COSTS

WITH the present scarcity of labor likely to get worse as the defense effort progresses, the fruit grower will find a chain saw to be a big help in his orchards. Fence rows in or around orchards cut down production of fruit unless kept cleared, and for this type of work one man with a chain saw can cut three times as much as two men with a crosscut saw.

Sometimes it is necessary to remove and replant part of the orchard. If stumps are to remain, the cost of cutting down a block of large trees with a chain saw operated by two men is considerably less than where trees are pulled out with a bulldozer. A farm tractor hitched to the tree trunk seven feet from the ground should be used to pull the trees in the direction they are cut.

Being already hitched to the tractor, the trees are then easily pulled to the brush pile for cutting and for burning of the brush. The trees can be cut into firewood with a chain saw, thus saving the wages of a buzz saw crew. For this type of work a small or medium-sized one-man saw is adequate.

Types of Chain Saws

The saw with the lowest initial cost is the electric chain saw. Growers who use electric pruning shears and have a portable 1,500-watt power plant can use this type. The cost is between \$100 and \$150.

Next in price range is one that uses the hydraulic pump on a tractor for power. However, this type ties up one tractor while in use, and a second tractor should be available for pulling over trees. Cost is \$200 to \$250.

One-man gasoline saws are priced at from \$300 to \$500, and a complete electric outfit sells for about \$500.

At \$1 per hour for labor, two men's wages for about five weeks will amount to the price of a chain saw.

For orchard work the chisel or planer tooth chain is best. It is easier to keep sharpened and is better for cutting crotches where the grain of the wood runs in several directions. An 18-inch blade will be long enough. For trees too large in diameter for this blade, the cut can be finished from the opposite side.

Care should be used to avoid catching clothing or brush in the chain while it is running.

Chain saws have been developed until they are dependable laborsaving machines that will give years of satisfactory service with ordinary care and will fill a definite need in the care and management of an orchard.—H. R. Muckley, Ohio Experiment Station, Wooster.

DECEMBER, 1951

New... Improved!

Orchardkraft AIR-POWERED PRUNER

Saves Labor—two men can prune faster and easier than 4 or 5 men with hand pruners. Pays for itself in labor savings 1st season. Carefully made of best materials for long, trouble-free service.

Look at these features:

- Very Fast Action
- Improved cutting head
- Cuts limbs up to 1 1/4" diam.
- Requires little air
- Positive grip handle
- Cuts easier
- Light weight

Write for circular; advise us nearest dealer's name.

JOHN C. BACON CORP.

Gesport, New York



This little yellow saw is full of labor-saving tricks!

It saws just as fast upside down as rightside up—a McCulloch trick that speeds up any wood-cutting operation. (The secret's in the floatless aircraft-type carburetor.)

An even greater labor-saving feature is light, light weight. This remarkable power saw weighs under 25 pounds complete. (Including 3-horsepower, 2-cycle gasoline engine, steel blade and Sabertooth cutter chain, automatic clutch, automatic-rewind starter, etc.)

For timber cutting or any tree work, get a fast, efficient McCulloch chain saw. Priced from \$325, f.o.b. Los Angeles.

Nationwide Sales and Service

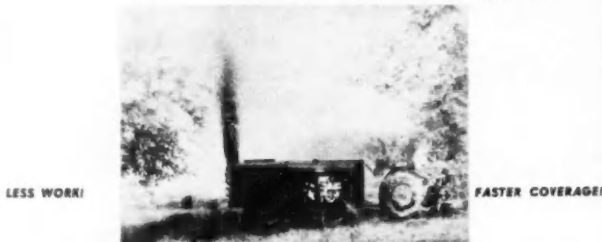
MCCULLOCH

World's Largest Builders of Power Chain Saws

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Send literature on items checked and name of nearest dealer:		
<input type="checkbox"/> 3-hp chain saw	<input type="checkbox"/> 5-hp chain saw	
<input type="checkbox"/> 7-hp chain saw	<input type="checkbox"/> Earth Drill	
NAME _____		
ADDRESS _____		

A HALE Centrifugal Orchard Sprayer Brings You Real Enjoyment!



Above—Side View of Hale Centrifugal Orchard Sprayer Being Operated by One Man. Banks of 5 Spray Guns on Each Side Work Together or Separately.

IT WILL MAKE YOU MONEY—Growers report they grew the "cleanest" fruit last year that they have ever grown due to efficient coverage of HALE Centrifugal Orchard Sprayer.

SAVES TIME—You can adjust spray guns to suit any size tree. Centrifugal Pump provides volume large enough to allow spraying as fast as tractor will run. . . . pumps any desired capacity up to 100 GPM at 600 lbs. pressure.

SAVES MONEY—Tractor driver is only man required to operate sprayer. Accurate records show that labor cost is about 1/2 the cost per 500 gallons of spray applied, compared to previous methods.

LESS EFFORT—No men required to handle spray

guns. Controls extend to within easy reach of tractor driver.

FLEXIBILITY—Sprayer will handle Dormant Spray Solutions as well as usual spray chemicals. (The large volume centrifugal pump is ideal, too, for feeding trees by spraying fertilizer).

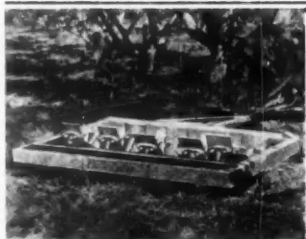
PRESENT OWNERS ARE PROUD of their HALE Centrifugal Orchard Sprayer because of results that prove the Hale Sprayer's Value . . . speak of the real enjoyment the sprayer has brought them in freedom from spray troubles.

WRITE TODAY for Bulletin #302. Please state number of acres in orchard, grove or vineyard (Dealer inquiries invited).

SPRAYER DIVISION

HALE FIRE PUMP COMPANY,

Conshohocken, Pa.



The Edwards Culti-Cutter in operation. Note tendency for blades to cup ground. Blades can be controlled in depth, each rotor operates independently. Does not disturb roots.

Write Edwards Equipment Co., 4312 Main St., Yakima, Washington, for additional information or prices.

Lick Cover Crop or Brush Problem with the Culti-Cutter

The Edwards Culti-Cutter—the machine you need for cutting cover crop or brush. Use in vineyard, orchard, hop yard or sage land! Cutting widths from 64" to 84" or larger! Pockets from blades aid in irrigation, reduce erosion.

EDWARDS EQUIPMENT CO.

4312 Main St. YAKIMA, WASHINGTON

FOR FINER FRUIT



WISS PRUNERS LOPPING SHEARS ORANGE CLIPPERS

A Pruner for Every Purpose and Purpose Write for Full Particulars

J. Wiss & Sons Co. NEWARK, N. J.

SMALL-FRUIT CULTURE

By James S. Shoemaker

Complete discussions of all phases of production and marketing of grapes, strawberries, bramble fruits, currants, gooseberries, blueberries, and cranberries, feature this text and reference book. Written in an easily understandable style, the practical grower will find this volume both interesting and useful. 64 Illustrations, 434 Pages. Sent postpaid on receipt of \$4.00.

AMERICAN FRUIT GROWER

106 Euclid Ave. Willoughby, Ohio

NEW FOR YOU

Pruning Tools

This is the time of year when most growers are thinking of the big pruning job ahead. One of the finest manufacturers of pruning equipment is Seymour Smith & Son, Inc., and their double-cut pruner is just a small part of the complete Seymour Smith line of orchard pruners and saws. The pruner pictured at the right is made of special alloy steel, beautifully machined and polished for perfect cutting and ease of operation. The double-cut action allows cutting from both sides and avoids bark injury. Write Seymour Smith & Son, Inc., 11012 Main St., Oakville, Conn., for all details.



Tanks and Profits

The only way to combat rising costs is to make orchard operations more efficient. A fruit grower who has a 200-acre orchard said that a wooden water storage tank paid for itself in two years. The Arrow Tank Co., 17 Barnett St., Buffalo 15, N. Y., will be glad to send you their booklet which will answer any questions you might have.



Pallets and Lift Trucks



Many growers are buying lift trucks to streamline their fruit handling. Union Steel Products Co. has designed a pallet-tainer of welded steel wire with a steel pallet base which is constructed to carry loads up to 4,000 pounds. Pallet-tainers can be stacked high because of an inter-

AMERICAN FRUIT GROWER

• STORAGE DOORS • PRUNING TOOLS

locking device, yet the stack is easily moved with a lift truck. Because of its construction, palletainers are shockproof, fireproof, easy to clean; and the sides fold down when not in use. Union Steel Products Co., Albion, Mich., will be glad to send you complete information.

Keep the Cold In



A great many storages are costly to operate because of improper doors. Every grower contemplating a cold storage should have the latest information on Jamison cold storage doors, constructed to make your storage more efficient. The Jamison catalog pictured at the left is available by writing Jamison Cold Storage Door Co., Hagerstown, Md. They will be glad to forward information on request.

Air-Cooled Know How



You probably will soon have a piece of equipment powered by a Wisconsin heavy-duty air-cooled engine. The new Wisconsin booklet describes the different types of engines available and lists their distributors whom you might want to call on for service or advice. Every grower should have this booklet which may be obtained by writing Mr. Ray Fellows, Wisconsin Motor Corp., 1910 S. 53rd St., Milwaukee 46, Wis.

Seeing is Believing

If you are like most fruit growers, brush removal, construction of irrigation ditches and terraces, use of root rakes and stumpdozers, and removing old trees, etc., are of keen interest to you. A new Kodachrome movie just issued by the Caterpillar Tractor Co. shows how to do these operations efficiently and easily. This worthwhile 23-minute picture is free merely by writing Caterpillar Tractor Co., Peoria 8, Ill., or by contacting the Caterpillar distributor in your area.

Prune PRUNING COSTS!



ATKINS No. 20 CURVED PRUNER

Outstanding favorite of citrus fruit growers! Narrow blade with reverse rip teeth to cut on the pull stroke. Lacquered hardwood handle. A fine example of the quality and value which have made the full line of Atkins Pruning Saws so popular from coast to coast!



ATKINS No. 6 PRUNER

Another outstanding "Silver Steel" value from the complete line of Atkins Pruning Saws! Somewhat smaller teeth for small limbs and twigs. Taper point with 3" section of 8 point teeth for easy starting. Hardwood, pistol grip handle...

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Branch Factory: Portland, Ore. • Knife Factory: Lancaster, N.Y.
Sales Offices: • Chicago • Portland • New York



ATKINS

RECOVERY OF CULTURE

by Henry Bailey Stevens

Is there some lofty purpose and unseen force in the pursuit of fruit growing beyond providing the essentials of 20th century living? In his book **RECOVERY OF CULTURE** Henry Bailey Stevens, a fruit grower and director of the University of New Hampshire Extension Service, arrives at some startling conclusions. When man left his fruit culture and became a flesh-eating and war-making animal, trouble began. Cain the gardener slew Abel the grazer. Did peaceful man in life's journey make a wrong turn which today has manifested itself in internal strife, erosion, neuroticism, urbanization, etc.? Here is a book which will give you a new outlook, stimulate your thinking and answer your deepest questions.

Sent postpaid on receipt of \$3.00

AMERICAN FRUIT GROWER

106 Euclid Ave. Willoughby, Ohio

Strawberry Plants Certified

Grown on new land, excellent roots, large crowns, true-to-name, moss packed. Guaranteed to arrive in good growing condition. Plants you can depend on. Missionary, Bloomsore, Klommore, Klondyke. Postage paid, 100, \$1.25; 250, \$2.25; 500, \$4.25. Express collect, 1,000, \$6.00; 5,000, \$27.50; 10,000, \$50.00. Tenn. Shipper, Tenn. Beauty, Robinson, Premier. Postage paid, 100, \$1.50; 250, \$3.50; 500, \$5.00. Express collect, 1,000, \$8.00; 5,000, \$37.50; 10,000, \$70.00. Plants ready. Order now. We will ship date you specify.

Romines Plant Farm, Dayton, Tenn.

A HAND-SIZE CHAIN SAW

A Goldmine for Farmers

TIMBER
CORDWOOD
FENCE POSTS
This "little fella" cuts more timber in less time than 10 men with hand saws. Cuts trees up to 2 feet wide. Weighs just 11 lbs. Operate it with one hand. The Perfect saw for pruning.



Send For: A Goldmine in Trees
MALL TOOL COMPANY

7734D South Chicago Avenue
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FATAL ACCIDENT

CARL H. HEMSTREET, district horticultural agent for northern Michigan, was killed recently in an automobile accident near Alden while returning from a fruit growers' meeting.

Mr. Hemstreet was widely known and highly regarded in the Michigan horticultural industry, having been a member of the extension staff of Michigan State College for 27 years. He was district horticultural agent when this position was created in 1947, serving the 10 northwestern counties of Michigan. Prior to that time he was county agricultural agent in Oceana County and Grand Traverse County. In 1942 Mr. Hemstreet was honored by the National Association of County Agricultural Agents with the distinguished service award.

PRUNING GRAPES

(Continued from page 13)

weights and bud numbers and perhaps checking his estimates on several vines during the day. It certainly will be a pleasant surprise to some vineyard owners, foremen, and experienced trimmers to observe how closely they are already pruning their vines to the Concord scale. Some folks are doing an excellent job without weighing prunings. However, other folks, even with considerable experience, are over-pruning and under-pruning far too many vines by as much as 10 to 30 buds.

If a Concord vine is over-pruned by as much as 10 buds, the yield of this vine is likely to be reduced by four to five pounds. When fruit is selling at \$80 a ton or four cents a pound, this means a loss of 16 to 20 cents per vine. This loss is many times the cost of the actual pruning. Far too many folks have been taking this loss for years without realizing it. Balanced pruning is a method for eliminating this loss.

THE END

PLUM BLACK KNOT

(Continued from page 13)

leaves have dropped and all the knots are clearly visible. The cuts should be made four to six inches below the individual knots to remove all internally diseased tissues.

The trees also should be sprayed thoroughly with 8-8-100 Bordeaux mixture before the buds begin to swell the following spring. Treated trees should be inspected soon after growth starts to make certain that all the knots have been removed.

Trees that have been neglected for several years frequently are so heavily infected that all the knots cannot be removed without destroying the trees. No control measure can save these trees. They should be removed promptly and destroyed to protect nearby healthy trees.—John C. Dunagan

AMERICAN FRUIT GROWER



From where I sit... by Joe Marsh

"Fair and Square"

We've just had a political campaign with everything from a torchlight parade to a neck-and-neck ballot box race.

Rusty Robinson, with no campaign funds, planned his Election Eve speech for the Square. Slim McCormick, who owns the Palace movie house, was finishing up his campaign in Pioneer Hall.

Then it began to rain. Rusty's political career was fizzling out in the damp when Slim showed up to say that Robinson people could meet in his theatre—for nothing. "I want to beat Rusty," Slim said,

"but certainly not with rain!"

From where I sit, you've got to give Slim credit for acting on his belief that everyone has a right to be heard—just as everyone has a right to his own opinions and tastes. Maybe you like hot coffee, for instance, when you "take a break." Well, my vote goes for a refreshing glass of beer. After all, we're lucky to be living in a free country where we can have our own preferences!

Joe Marsh

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THE ORCHARD HOME

Homekeeping hearts are the happiest.
—Longfellow

Gifts and food for the holiday meal are the two big questions in everyone's mind this month. Below are suggestions which may give you some inspiration.

FRUIT FOR CHRISTMAS

It is commonly conceded that during the holiday season we are apt to eat too much candy and desserts. So why not send gift boxes and packages of fruit to friends for Christmas?

Of course, if you find fresh fruits are too expensive to send, canned fruits make wonderful Christmas gifts with special holiday labels on the cans or jars. Dried fruits are placed on the list of good gifts and can very easily be put into Christmas boxes and wrapped attractively. Recipes, printed on gay Christmas greeting cards, for using dried fruits can be enclosed in the gift package.

The Santa Claus pack should contain more fruit to be distributed to children. Young people are constantly told that Santa will bring them "a sack of candy," until candy has become a Christmas tradition.—*Lettie B. Ritchie*

LET'S DRESS UP THE JELLIES

There's no more welcome Christmas gift to friends than a glass of delicious fruit preserves. Since emphasis today is on "wrappings," let's dress them up!

Cut two pieces of stiff cardboard a little larger than the bottom of your jelly glass. Cut six poinsettia leaves of the desired size from green crepe paper. Glue about one-fourth inch of the bottom of the leaves to one of the cardboard until the leaves form a circle. Glue second piece of cardboard over first one. Now put a five-inch square of yellow crepe paper over the top of the jelly glass, folding the paper down around sides of glass and gluing to keep in place.

Set the glass on the cardboard and lift up ends of green leaves (they should be a bit higher than the top of the jelly glass). Glue them in place on the glass. Near the top tie a narrow band of red ribbon. Two or more of these glasses in an attractive box with a little verse lend a personal touch to the gift.—*Mrs. Harley B. Clark*

—Suggestions for Christmas dinner:

STEAMED CRANBERRY PUDDING

- 1 cup cranberries, chopped
- 1 small can crushed pineapple, drained
- $\frac{1}{2}$ cup molasses
- $1\frac{1}{2}$ cups flour
- $\frac{1}{2}$ teaspoon salt
- 1 teaspoon soda
- $\frac{1}{4}$ teaspoon each of cinnamon, cloves, and nutmeg

Combine fruits, nuts, and molasses; add dry ingredients and mix well. Fill greased one-quart mold two-thirds full, or grease top of double boiler, fill, and steam over boiling water for two hours. Serve hot or cold with fluffy hard sauce or hot lemon sauce.—*Miss Frances Christopher*

A CHRISTMAS TRADITION

We always have geese for Christmas and use the following stuffing:

- 1 peck of apples, peeled and quartered
- $1\frac{1}{2}$ pounds of raisins, washed

Remove excess pieces of fat inside bird before stuffing and salt cavity. Put in a

large handful of apples and then a handful of raisins until cavity is filled. The above quantities are for two birds. Roast geese until well done. This makes a fine tasting bird and the fruit dressing cuts the richness that is usually found in geese.

This is a family recipe brought from Austria-Hungary. Each daughter-in-law had to become apt at this way of cooking geese before she was a part of the family.

—*Mrs. Charles Hoffmeister*

SANTA CINNAMON SALAD

- 1 cup diced apple
- $\frac{1}{2}$ cup diced orange
- $\frac{1}{4}$ cup chopped English walnut meats
- $\frac{1}{4}$ cup red cinnamon candies
- 2 tablespoons sugar
- 1 cup hot water
- 1 package cherry flavored gelatine
- 1 cup cold water

Dissolve candies and sugar in hot water. Heat just to boiling. Pour over gelatine; stir to dissolve. Add cold water and red food coloring, if desired, for a brighter holiday color. Chill until partially set. Stir in remaining ingredients. Pour into oiled, large or individual, star-shaped molds. Chill until firm. Unmold on crisp lettuce and serve with salad dressing.—*Mrs. Charles Williams*

CANDIED ORANGE OR LEMON PEEL

- Peel from 3 clean-skinned oranges or 6 lemons
- 1 cup sugar
- 2 tablespoons light corn syrup or honey
- $\frac{1}{4}$ cup water

Cover peel with water. Add $\frac{1}{2}$ teaspoon salt. Boil $\frac{1}{2}$ hour. Drain. Cover again with water and boil until tender. A longer period is required to tenderize lemon peel than orange peel. Drain. Cut peel in strips. Bring sugar, corn syrup or honey and $\frac{1}{2}$ cup water to a boil. Cook peel at low temperature in this to gently absorb most of syrup. Cover. Cool overnight in syrup. The following day, reheat slowly to simmering point. Cool again in syrup. Reheat and continue this heating and cooling process until most of syrup is absorbed. This will probably take several days. Drain. Spread out to dry on rack or waxed paper until surface syrup has been absorbed—one day or more. Roll in granulated sugar, or shake peel in paper bag with a little sugar. Store in covered container.—*Sunkist Kitchen*

CRANBERRY NUT BREAD

- 2 cups flour
- $\frac{1}{2}$ teaspoon salt
- $1\frac{1}{2}$ teaspoons double-acting baking powder
- $\frac{1}{2}$ teaspoon baking soda
- 1 cup sugar
- Rind and juice of 1 orange
- 2 tablespoons melted butter
- Boiling water
- 1 egg, beaten
- 1 cup chopped nuts
- 1 cup raw cranberries, cut in halves

Sift flour, salt, baking powder, soda, and sugar. To juice and rind of orange add melted butter and boiling water to make $\frac{3}{4}$ cup. Add this mixture with beaten egg to dry ingredients. Add nuts and cranberries. Four mixture in a greased bread tin and bake in 325° F. oven for 1 hour. Keep 24 hours before slicing.—*Edith Vogtman*

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POWER IN YOUR PRUNING

(Continued from page 9)

tool, it is usually possible to reach branches 10 to 12 feet up; thus the outer lower half of mature apple trees is thinned out. This type of pruning gives a better distribution of bearing surface inside the tree and prevents much limb breakage because of better fruit distribution.

Suggestions for Handling Pruners

It usually takes the average workman several days to learn to manipulate power pruning tools. Here are

lubricating unit or occasionally squirting several shots of alcohol from an oil can into the compressor end of the hose.

Some operators when using long pruning shears tend to leave too many stubs. This can be overcome to a great degree if the operator when making the cuts will brace the shears by placing his hand on the barrel of the tool.

It is important, too, because of the ease with which power shears operate, to be alert and to be able to make decisions quickly as to which branches should be removed. In other words, don't become "trigger happy," for the tree could easily be pruned too heavily.

Another word of caution: Power shears will take off a thumb or cut the rubber hose just as readily as a limb!

A big advantage, too, when using most of the power pruning tools is that you are working some distance from the area of the tree being pruned. This is particularly true if a platform is used. Thus you are in a much better position to judge the cuts you are making as related to the immediate area in which you are working. More and smaller cuts are made than is usually the case with hand-operated tools, and the amount of sucker growth is reduced.

The psychological effect created by the use of air power pruners should not be overlooked. Men work more steadily because of the rhythm of the compressor engine. One grower has said, "I find that the men work harder when they get more done, as they certainly do with this power pruning equipment." And workmen take pride in using and maintaining the tools.

Low Maintenance Cost

From a cost standpoint, it has been found that a tractor-mounted power pruner unit uses about four gallons of fuel per day. In addition, there is the wear and tear on the tractor. While the initial cost of the equipment may be somewhat high, growers report that maintenance seems to be low. On many farms the compressor is used the year round for inflating tires, powering grease guns, supplying air for spray painting, and for general farm use.

The objects of pruning are effective spray coverage for insect and disease control, uniform light penetration for good color, and the removal of older, shaded branches in order to maintain wood capable of bearing fruit of good size. Such an effective pruning job can be done with power pruners and at a lower labor cost. THE END

YOUR LAMP OF EXPERIENCE

THE story of the year 1951 contains much of significance that can be easily overlooked. To make a permanent record of this unusual fruit year as well as to draw attention to events that will affect future years, AMERICAN FRUIT GROWER will present the third annual Fruit Yearbook in the coming January issue.

Patrick Henry said, "I have but one lamp by which my feet are guided and that is the lamp of experience. I know of no way of judging of the future but by the past."

The information in the coming Yearbook issue is your lamp of experience and guide to the future. Watch for it and save your copy when it arrives. In your Yearbook issue you will find price trends, variety changes, new production methods, as well as many vital and significant developments in fruit growing which occurred in 1951.

some suggestions for handling power pruners which have proved worth while:

When working in a large tree, it is well to pull up eight to 10 feet of hose and drape it over a nearby limb. This relieves you of the entire weight of the hose.

When you are in the top of a large tree and have completed your pruning, it is usually well to disconnect the tool from the hose before you descend. Once on the ground, the hose can be pulled from the tree and recoupled to the tool.

If the air hose becomes snarled while you are working from the ground, the coupling can be disconnected and the line pulled clear from the compressor end.

When pruning in the top of a tree, most of the tools can be effectively used to hook out brush to a point where it can be pushed through the tree and onto the ground.

If cold weather stiffens up your power pruning tools, making them difficult to operate, you can remedy the situation by using alcohol in the

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NUT GROWERS NEWS

Bunch Disease

DRS. J. W. McKay and H. L. Crane, USDA Plant Industry Station, Beltsville, Md., will review the bunch disease of black walnut in the 42nd annual report of the Northern Nut Growers Association. According to observations, many eastern black walnut varieties have a higher resistance to this virus disease than do most of the other native and introduced species of *Juglans*, including butternuts, Japanese heartnuts, Persian walnuts, and two species from southwestern U. S.

California now forbids entry of walnut trees or scions from east of the Rocky Mountains, hoping to keep out this disease. Regarding the possible effects of bunch disease on the walnut industry, McKay and Crane say:

"The disease is known to spread to nearby healthy walnut trees but the means by which it is spread or how infection occurs is not known. . . . It seems certain that in localities where the disease is already present there is little use in planting young trees of the most susceptible species unless trees that are already diseased are destroyed in the vicinity. . . . Infected nursery trees probably constitute the most important means of long-distance spread. . . ."

Symptoms

"The characteristic symptoms of the bunch disease," say the USDA workers, "are mainly the production of brooms or sucker growth on the tree trunk and main branches and the tufting of terminals, profusion of small branches from axillary buds, the dwarfing and narrowing of the leaflets, and the dying back of the trees, resulting sometimes in the death of the trees. The principal symptom is the production during summer of bushy wiry growth. . . . This growth proliferation continues until frost, producing, on the Japanese walnuts particularly, a tightly packed mass of small, wiry twigs and undersized leaves. "Killing back of the diseased portions of the tree usually occurs with the first hard freezes of winter. . . . Trees even moderately affected soon become worthless for nut production. . . ."

In plantings at Beltsville some eastern black walnut trees "have shown characteristic symptoms of the disease, but following the removal of the entire diseased limbs, the symptoms have not reappeared."—J. C. McDaniel, Sec'y, NNGA, Hort. Field Lab., Urbana, Ill.

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American FRUIT GROWER



RICHARD T. MEISTER, Editor
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America's Only "NATIONAL FRUIT MAGAZINE"

Can the Growers Alone Lick the Cull Problem?

DOES the "marketing agreement" machinery offer the means of keeping cull fruit off the market? This is the question that is raised by A. H. Apperson, Jr., of Virginia.

He feels that by dovetailing the machinery of price support into the cull problem we need not ask one dime in price support subsidy payments, and yet we can have a market free of competitive culls. He would propose not to control acreages, but to control the shipment of inferior fruit under a marketing agreement.

To put it into his own words, "I know there are many who will be horrified at this suggestion that we further inject government into business as a whole and into agriculture and the apple industry in particular.

"However, carrying it to the ridiculous extreme, the regimented millions of Stalin's Communist Soviet, and Hitler's Nazism are no more dead than we in the apple industry will be under present 'laissez-faire' attitudes and lack of some concrete plan to overcome our own besetting ills. With all our 'Freedom' and independence we are staring straight into the face of bankruptcy, continued losses, and the inevitable disappearance of the apple industry.

"You, John (Watson), Carroll Miller, Sam Fraser, and others, can suggest, cajole, threaten, and exhort us to clean our house until you, and we too, are blue in the face. But without some way to fairly enforce the measures which all of us need to take, we will continue to make of our problems a debating society or, even worse, a 'gripe session', and arrive at just where the 'cull problem' is today—nowhere! I urge you to consider that as one possible solution to the cull problem in the absence of any other to date."

Anyone who reads this must first of all admire Mr. Apperson's sincerity and courage. It isn't easy to speak so plainly on a subject that is getting close to the fundamental philosophy of America.

But what do we do? It certainly is full time to hear more plain talk like that from Mr. Apperson. What do you think?

The "Christmas" Apple

THERE are more than a thousand varieties of apples—early and late apples, sweet and sour, red and yellow, and God even made little apples. Each has been christened according to the fancy of its originator and so we have Spy and Pippin, Russet and Banana, Sheepnose, Seek-No-Further, Maiden Blush, and there is one variety which has been named "Christmas" in honor of the birth of Christ.

Who would be so moved by the spirit of Christmas, by peace on earth and good will toward men to name his apple "Christmas"? By an irony of fate it was Roschdestvenskoe, a Russian. While it was tested by the Vermont Experiment Station, it was never planted here; our own varieties were far superior. But there is hope for the world as long as the "Christmas" apple tree in Russia continues to remind the people behind the Iron Curtain of the birth of Christ and the spirit of Christmas.

And so we say a "Merry Christmas" and a "Happy New Year" to all our fruit grower friends everywhere.

Fruit Production at a Glance

	1940-49	1950	USDA Nov. 1, Est. 1951
	Thousand Bushels		
Apples	109,833	123,126	113,268
Eastern	46,016	57,118	54,732
Central	19,092	17,947	23,141
Western	43,925	48,061	35,395
Pears	31,008	31,140	32,228
	Tons		
Grapes	2,797,000	2,707,400	3,198,900
Almonds	25,480	37,700	42,700
Walnuts	69,420	64,300	75,800
Filberts	6,693	6,620	7,390
Pecans	124,066	125,622	147,905
Improved Wild & Seedling	51,910	57,753	77,242
	Barrels		
Cranberries	728,200	904,300	914,000

Fruit Talk

The Norman Jay Colman award is presented by the American Association of Nurserymen each year for an outstanding published contribution to the field of horticulture. Colman was the first Secretary of Agriculture, often termed "Father of the Experiment Station."

This is part of the trouble: In December of 1950 one forecaster said: "Apples are expected to be fewer in numbers in 1951. Two large apple crops in two successive years, such as happened in 1949 and 1950, is very rare, but three consecutive large crops is unknown in recent years." Well, the "unknown" has happened.

The quest continues for some means of setting fruits parthenocarpically by the use of growth regulators. Osborne and Waine report limited success from England with certain varieties of pears, using alphanaphthoxypropionic acid at 100 parts per million. They found it necessary to make five applications at three-day intervals immediately after full bloom. They conclude that a continuous and adequate supply of growth regulators must be made available throughout the early stages of development. They also conclude that one chemical may be effective on one variety and not on another.

Song of the Orchard Mouse

O, I am the happy orchard mouse
Who shuns the barn and scorns the house.
The harm I do is termed terrific
And best of all, boy, I'm prolific!
The farmer plants his little trees
With loving care and bended knees.
While I sit back and laugh with glee
Well knowing it's duck soup for me.
The fruit tree grows, so does the grass
And through this cope I safely pass.
No cultivator harms my nest
Conditions are for me the best.
When winter comes my clan is legion
We appropriate the whole darned region.
What chance has then a little tree
Thus accessible and for free?
The farmer knows a lot of things
Concerning worms and bugs with wings.
A saw and axe for fire blight,
A different spray for every mite.
Each year a system, new, expensive—
The cost, my lads, can be extensive.
Problems plague him by the score
He solves them quick and asks for more.
All this he does with open eyes
But somewhere still a weakness lies.

—Eino Annala

F. B. Wann and D. W. Thorne of Utah have successfully controlled manganese deficiency in peaches and apricots by digging two pounds of manganese sulfate into the soil beneath each diseased tree or injecting trees with manganese salts during the winter or early spring months.

The annual report of the Horticultural Experiment Station at Vineland, Canada, put out by Director E. F. Palmer and his staff, is one that will catch the eye and be read. A cover in color, and eight color plates are a happy contrast to most official reports.

—H.B.T.

Coming Next Month

- Third Annual Yearbook—featuring
- Production and Price Trends
- Fruit Varieties of 1951
- A Vision of the Future
- Well Done for 1951
- "Fruit for Health"
- Fruit Advertising & Marketing

AMERICAN FRUIT GROWER

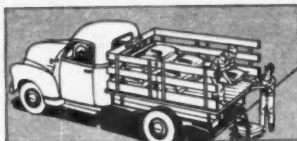


(Continuation of standard equipment and trim illustrated is dependent on availability of material.)



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Chevrolet trucks are famous for operating economy on all kinds of jobs. High efficiency valve-in-head engines cut gas and oil costs to a minimum... save their owners money every mile.



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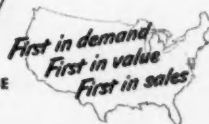
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Such dependable field performance is mighty important when you raise fruit as a business. For 1952—to be sure of results—use Orchard Brand!

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(Contains 50% DDT)

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(Contains 75% DDT)

GENICOP* SPRAY POWDER
(25% DDT—72% Basic Copper Sulfate)

GENITHION* SPRAY POWDER
(Contains 15% Parathion)

25% DDD EMULSIFIABLE CONCENTRATE

50% DDD SPRAY POWDER

GENITE* EM-923 EMULSIFIABLE CONCENTRATE (Miticide)

25% LINDANE SPRAY POWDER

BHC G-12 SPRAY POWDER

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(Contains 34% Metallic Copper Equivalent)

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